COUNTWAY LIBRARY
HC 3I4L W

BOSTON
MEDICAL LIBRARY
8 THE FENWAY



Digitized by the Internet Archive
in 2015

https://archive.org/details/journaloftenness3619tenn

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 1

JANUARY, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

PROSTATIC ENLARGEMENT, Jefferson C. Pennington, M.D., Nashville . . . 1

SPECIAL OVARIAN TUMORS: WITH A REPORT OF A SERIES OF CASES, Carroll H. Long, M.D., M.S. (Surgery), Johnson City; Joseph Ziskind, M.D., Department of Pathology, Tulane University, New Orleans, Louisiana . . . 5

TREATMENT OF BURNS BY THE USE OF TRIPLE DYES, Charles C. Trabue, M.D., Nashville . . . 13

PERFORATING WOUNDS OF THE ABDOMEN, Elkin L. Rippy, M.D., Nashville . . . 20

TENNESSEE DOCTORS AND THE MILITARY SERVICE 26

EDITORIAL . . . 32

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE . . . 38

NEWS NOTES AND COMMENTS . . . 38

MEDICAL SOCIETIES . . . 39

ABSTRACTS OF CURRENT LITERATURE . . . 41

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION . . . 44

STANDING COMMITTEES . . . 45

INDEX TO ADVERTISERS . . . XVIII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

BACKGROUND
Three Decades of Clinical Experience

THE use of cow's milk, water, and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

DEXTRI-MALTOSE No. 1 (with 2% sodium chloride), for normal babies.
DEXTRI-MALTOSE No. 2 (plain, salt free), permits salt modifications by the physician.
DEXTRI-MALTOSE No. 3 (with 3% potassium bicarbonate), for constipated babies.

These products are hypo-allergenic

DEXTRI-MALTOSE

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons. Mead Johnson & Company, Evansville, Ind., U. S. A.

BOSTON MAR 10 1943 MEDICAL

1943 ANNUAL MEETING CANCELLED
FOR PARTICULARS SEE EDITORIAL PAGE

Come and get it!



• Look at him go! First in any chow line, this rookie's enthusiastic gorging is offset, fortunately, by a strenuous program of exercise. His counterpart among the "Rocking Chair Brigade" still has to be considered. When over-indulgence and lack of exercise are causative factors in constipation, relief may often be obtained with Petrogalar.*

It helps to soften thoroughly the stool and encourages regular, comfortable bowel movement. Petrogalar is acceptable even with "stuffy" patients because of its pleasant taste and ready miscibility in water.

It may be taken directly from the spoon or from a glass. Consider Petrogalar for the treatment of constipation.



FOR THE TREATMENT OF CONSTIPATION

—Petrogalar—

ACCEPTED MEDICAL ASS'N

*Reg. U. S. Pat. Off. Petrogalar is an aqueous suspension of pure mineral oil each 100 cc. of which contains 65 cc. pure mineral oil suspended in an aqueous jelly containing agar and acacia.

Petrogalar Laboratories, Inc. • 8134 McCormick Boulevard • Chicago, Illinois

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M. HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI JANUARY, 1943 No. 1

PROSTATIC ENLARGEMENT*

JEFFERSON C. PENNINGTON, M.D., Nashville

This ailment is usually characteristic of men, although there a few proven cases on record where it occurred in women. In women a group of subcervical glands enlarge and cause symptoms, and these glands have the same histological structure as the prostate in the male. However, this is so rare that we need pay little attention to it as compared to prostatic enlargement in the male.

Prostatic enlargement is most common in the male after the age of fifty. It is estimated that from twenty-five to sixty per cent of men past fifty are affected. Some men have reached the ripe old age of 100 without being troubled with it. The youngest man operated by me for prostatic enlargement was thirty-nine. There was one in Memphis recently who was only twenty-five.

Etiology.—The cause is not yet known. Character and past habits have nothing to do with it. The rowdy drunkard and the chronic venereal are no more apt to be involved than the upright, temperate man or even the celebrant. Thus we know no explanation other than to say that it is something which happens to a man similar to the change of life in a woman. This, however, does not explain the seeming exemption of some races. Prostatic hypertrophy is practically unknown among the Chinese. I have discussed this with medical missionaries to China who have spent years over there, and all of them said that they never saw nor heard of prostatic hypertrophy in a Chinaman. Nevertheless, I saw and operated upon one in this country.

Symptoms.—To be kept in mind are the man's age, then—

Weakness of stream	Backache
Frequency	Irritability
Nocturia	Dribbling
Headache	Difficulty
Constipation	Straining
Hypersexactivity	Incontinence
Hyposexactivity	Leg pains
Dysuria	Testicle pains
Urgency	Hemorrhoids
Tenesmus	Hypertension
Pyuria	Hypotension
Hematuria	Drowsiness
Albuminuria	General malaise
Dizziness	Personality changes

The patient may have any one or any combination of these symptoms.

Time will not allow much elaboration, but we wish to stress a few of them. Weakness of the stream is usually the first to appear, and it is very necessary to consider its importance, since most patients think little or nothing of it. However, when attention is called to it, one readily responds with some illustration such as having been

*Read before the Middle Tennessee Medical Association, November 21, 1942, Columbia, Tennessee.

able formerly to knock a gravel out of a bank when voiding against it as compared to now having to spread his feet apart to keep from voiding on his shoes.

Nocturia seems to be very aggravating, especially in cold weather, when he has to get out of bed in an unheated room, and if tenesmus is also present, he soon becomes convinced that something should be done.

Dysuria and hematuria are also very persuasive to seeking medical aid.

Hypersexactivity is occasionally encountered, and we think it is generally due to arteriosclerosis resulting in stimulation of certain brain centers. It is this kind of old man who has become a sexual extremist and gets into trouble by propositioning women on the streets. Occasionally, such an old man has been shot or arrested for attempted rape.

It is most generally true that the prostatic has lost his sex powers, and it is worth while to dwell briefly upon this phase. The hyposexual prostatic never seems to blame his prostatic enlargement for his loss of sex power. In fact, he is very often determined not to have any surgery because he has heard that prostatic operations invariably cause permanent impotence. He does not reflect that he is now totally impotent and cannot become more impotent. The truth of the matter is that he is impotent because he is a sick man and the prostate is the cause of his sickness. If he can recover from his sickness, he will regain his potency if all other necessary factors are present regardless of prostatic surgery.

Diagnosis. — After the symptoms have been evaluated and the history is well in mind, the patient should be given a chance to void all he can in the presence of running water without another person in the room. Then he should be catheterized for residual. Residual urine is variable in quantity in some cases, and in others it tends to be constant. Some will vary from an ounce or two to eight or ten ounces on different days. The most residual we have encountered recently was one-half gallon.

Residual urine is not always essential for diagnosis. Rather often we have encountered patients with nocturia and daytime frequency who do not carry a residual, and whose symptoms prove to be due to prostatic enlargement and who are relieved by prostatic surgery.

Catheterization should be done with a soft rubber catheter if possible. If not, it should be done with a fiber catheter or a soft rubber cather, inside of which is a catheter guide. Not long ago we saw a very recently robust farmer who had been catheterized with a metal catheter the day previous. He was bled white, his hemoglobin was twenty-five per cent, and an emergency suprapubic cystotomy was done. An opening was found through the middle lobe of the prostate, through which a pencil could have been inserted. We barely saved his life by the use of transfusions, packing, and other emergency methods.

It is here that the distinction must be made between stricture of the urethra and obstructive enlargement of the prostate. In most cases this can be done by determining the location of the obstruction. Keyes stated many years ago that severe strictures and hypertrophied prostates do not occur together, and we have found very few exceptions. In the past month we have had two cases of acute retention in whom catheters, even filiforms, could not be introduced and turned out to be due to stones impacted in the posterior urethra. The grating of a sound against the obstruction gave the first clue. X-rays proved it, and operation was necessary for removal, one being done suprapubically and the other through the perineum.

We do not attach nearly so much importance to gradual decompression as we formerly did.

The importance of rectal examination is mostly for determining the consistency of the prostate with reference to malignancy. Whenever a prostate is found per rectum to be of stony hardness and nodular and immovable, it is almost certain to be malignant. It was formerly believed that all malignancy began in the posterior lobe, but this has been repeatedly disproven by finding malignancy in sections from deeper por-

tions removed by the resectoscope and by finding malignancy in deeper portions of glands removed by suprapubic and perineal prostatectomy when no malignancy could be found in close proximity to the rectal surface.

Prostatic stones may be felt per rectum if they are near enough to the surface. We have seen a few cases in which we felt the grating of the stones under the palpating finger without being able to detect the outline of a stone and in which the diagnosis was verified by X-rays.

A rectal examination may reveal a prostate seemingly normal in size and consistency when the prostate is known to be the cause of urinary obstruction. We should always be certain not to rely upon rectal examination alone to determine the role being played by the prostate in urinary obstruction. Again, the patient may have a rectum so full of prostate as to cause obstruction to bowel movements without the prostate being the least bit enlarged into the bladder; whereas, the small prostate per rectum may be as large as a lemon or larger in the bladder.

Plain X-rays of the prostate or X-rays after injection of air or other media into the bladder are capable of determining size and type of extension into the bladder. As a rule, it is best to X-ray these prostates including the whole urinary tract to determine if there is other pathology, stones in particular. In absence of X-ray, an accurate determination of prostatic status and bladder status can be determined through the cystoscope.

Surgical Treatment.—Here is where we could talk the balance of the day and here is a phase which may be argued among the urologists and other members of the medical profession until a Senate filibuster would look like a midget in comparison; at least 1,500 papers have been published on it. Therefore, I shall mention briefly some of the most widely-used methods and leave the subject wide open for silence or expression of individual opinions or whatever else seems to suit the members best. One phase of treatment which no one disputes is the preparation of the patient by proper drainage, which may be a urethral or suprapubic catheter. Urinary antiseptics may or may not be used. If used, the choice is determined by various factors.

Prevention of epididymitis is important. For this urinary antiseptics, frequent lavages, vasectomy by one of the various methods may be employed. Tonics, transfusions, exercise, and rest also come in for consideration.

We pay careful attention to kidney function as revealed in P. S. P. tests and N. P. N. readings and think that both should be used in every case as a check against each other.

After the patient is ready for surgery, there is considerable range of choice, depending upon the type of prostate, general condition of patient, the urologist's capabilities, the psychology of the patient, and many other factors.

The oldest method, of course, is suprapubic prostatectomy, which is done in either one or two stages. Another is perineal prostatectomy in one or two stages. The latest surgical method to come into use is transurethral resection with cold or electric cutting. All of them have their griefs and their merits. Some of the griefs are entering the rectum the wrong way; incontinence from the sphincter damage, hemorrhage, consequent formation of strictures, and so forth. Personally, we have used all of these methods and have our own pet ideas about choosing between them, and we hope that, if there are any discussants, at least some of them will bring out some points on this phase.

Nonsurgical Treatment. — Such procedures as repeated catheterization, prostatic massage, dilatation, and so forth are generally accepted as not only being worthless but harmful in the respect that they keep the patient in false hopes while he is gradually growing worse and, therefore, less able to withstand a curative procedure. We must remember, however, that there are rare cases on record in which the passage of a sound or a catheter just one time gave many years of relief or even lifetime relief. Such instances are so rare that it is even dangerous to mention them to the laity.

In the class of proven useless and harmful procedures we must list the use of diathermy and X-rays in benign hypertrophy and diathermy in malignant hypertrophy.

Nonsurgical treatment of benign prostates by administration of sex hormones is still in the experimental stage and has no generally accepted value applicable to general use.

Treatment of the malignant prostate is a problem which has perhaps brought forth more different applicable methods than any malignancy elsewhere in the body. For instance: brain malignancy, nothing; liver malignancy, nothing; lung malignancy, X-rays; stomach malignancy, X-rays or surgery or both; breast malignancy, surgery and X-rays; malignancy of cervix, surgery, X-rays, radium, and so forth.

But with prostatic malignancy we have suggestions to use X-rays or radium in disputable quantities with or without surgery and in the menu of surgery is listed cystotomy; perineal prostatectomy, radical or conservative; suprapubic prostatectomy; transurethral resection; orchidectomy, complete or incomplete; sterilization by X-rays, administration of stilbesterol and various combinations of these; and finally, fever therapy with or without one or more of the above procedures.

Since none of us can yet speak with accepted authority on treatment of the malignant prostate, we hope many of you will be prompted to express ideas and theories, the combination of which may cause some one or more of us to land upon a course of experimentation and study which will eventually lead to something more beneficial than anything yet developed.

SPECIAL OVARIAN TUMORS: WITH A REPORT OF A SERIES OF CASES*

CARROLL H. LONG, M.D., M.S. (Surgery);† JOSEPH ZISKIND, M.D.‡

The older concept that tumor cells are purely parasitic and without function has been disproved in regard to neoplasms arising from a number of the ductless glands. This is especially true in the instance of a group of ovarian tumors in which are included the granulosa and theca cell tumors, the arrhenoblastoma and the ovarian hypernephroma. Closely related histogenetically to these, but without proven biologic activity, are the Brenner tumor and the dysgerminoma. The important work of Robert Meyer[9] clarified the earlier reports of several investigators who had called attention to ovarian tumors having biologic activity. Meyer emphasized the importance of endocrine manifestations in the diagnosis of these special ovarian tumors and awakened in this newly-developed field a wide interest, which is demonstrated by the constantly-enlarging number of case reports which appear in the medical literature.

A number of investigators have undertaken to re-examine old pathological material and have been able to reclassify in the group of special ovarian tumors many solid ovarian neoplasms previously not recognized as such. Similar series of cases have been reported by Meigs[7] at Massachusetts General Hospital, by Russell[12] at University College Hospital School, by Wolfe and Kaminister[19] from the Gynecological Museum of the Long Island College of Medicine, by Seegar[17] at Johns Hopkins, and by Klaften[5] in Vienna. Probably the largest reported series was that of Dockerty,[2, 3] who studied 500 solid ovarian tumors which had been removed at the Mayo Clinic. Of this number he found that seventeen per cent, or eighty-five, could be classified in the special group. Sixty per cent of the eighty-five were granulosa cell tumors, twelve per cent were theca cell tumors, three per cent were arrhenoblastomas, twelve per cent were dysgerminomas, and thirteen per cent were Brenner tumors.

We have recently surveyed the pathological material available at Charity Hospital in New Orleans in an effort to find the incidence of special tumors in a comparatively large group of solid ovarian neoplasms. Records were found of ninety-eight solid ovarian tumors discovered at operation during the years 1932 to 1941. Of these, twenty-five were classified by us as belonging to the special group; ten as granulosa cell tumors; four as theca cell tumors; one as an arrhenoblastoma; one as an adrenal cell carcinoma; two as dysgerminomas; and seven as Brenner tumors. Similar diagnoses were suggested in eight other instances, but could not be confirmed on the basis of the available material. This series includes several tumors which already have appeared in the literature as case reports.[1, 6, 18] Other data accumulated in the study will be presented later.

Histogenesis

Meyer and others, particularly Meigs,[7, 8] Novak,[10, 11] Schiller,[15] and Schattenberg,[13, 14] have studied the histogenesis of the ovary in an attempt to correlate the new clinical concepts with the morphological findings in the developing gonad. The origin of these special tumors seems to be related closely to embryonic anomalies. The ovary and testicle in embryonal life develop on the anterior surface of the Wolffian body in close juxtaposition to the anlage of the urinary tract and the adrenal gland. The gonads cannot be differentiated sexually until the embryo is fourteen millimeters in length. After sex is determined, some of the undifferentiated cells may persist and in later life give rise to the dysgerminoma, a tumor which generally is considered to be sexually neutral. Soon after the embryo reaches fourteen millimeters in length, sex gland differentiation can be observed. Cords of cells develop beneath the germinal epithelium and push down toward the hilum. In the testicle these cords join the mesonephric structures and jointly with them take part

*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1942.

†Johnson City, Tennessee.

‡Department of Pathology, Tulane University, New Orleans, Louisiana.

in forming the mature male urogenital apparatus. In the ovary the medullary columns undergo atrophy and disappear, though remnants may persist in the region of the rete ovarii and give rise in later life to a tumor with distinctly masculinizing tendencies, the arrhenoblastoma. A further embryological development in the ovary is a second process of proliferation and differentiation involving the epithelium which develops into the egg tubes of Pfleuger, the forerunners of Graafian follicles. In the past these cell groups have been thought to have their origin from the germinal epithelium; however, since the work of Fischel,[4] some doubt has been thrown upon this theory. There is an increasing belief that the granulosa is formed by differentiation from the ovarian mesenchyme in situ, and it is likely that mesenchymal cells may develop into either an epithelial type of cell, the granulosa, or into a theca connective tissue type of cell. The common origin of the granulosa and theca cells explains their close functional and histological relationship. Granulosa cell tumors arise from rests of granulosa cells (granulosaballen) which are left over during the process of follicle formation. This is the concept generally held and emphasized by Robert Frank. Novak, Schiller, and others oppose segregation of granulosa cell from theca cell tumors, believing that they arise from differentiated mesenchymal cells potentially capable of becoming either granulosa or theca cell in type.

Because of the close anatomical relation of the anlage of the gonads, the urinary tract, and the adrenal glands, it happens frequently that rests of the latter two structures are included in the embryonic ovary. The ovarian pedicle develops comparatively late, and for this reason the ovary remains in close connection with the other tissues until a late phase in its embryonal development. Two folds enclosing the ovarian ligament finally separate the gonad from the surrounding tissue. These folds or grooves may develop in such a way as to include extragonadal tissue in the ovary. Such anomalous development is thought to explain the occurrence in ovaries of neoplasms derived from tissues not normally present in the female gonads. The mesonephroma presents histological structures resembling renal glomeruli. The Brenner tumor consists of islands of transitional epithelium embedded in fibromatous stroma and may include glandular cavities lined by high columnar mucinous epithelium, a combination of tissues which is found physiologically in the pelvis of the kidney and in the urethra. It is likely that both of these neoplasms develop from the anlage of the urinary tract. Suprarenal cortical tissue can be found frequently in the ovaries of the newborn, but seems to disappear usually by a process of involution. Rarely in adult life such rests give rise to a neoplasm histologically identical with the hypernephroma.

Pathological Characteristics

Granulosa cell tumors vary in their gross appearances. They may be almost microscopic in size, or they may fill a considerable portion of the peritoneal cavity. Usually they are relatively small, have a smooth outer surface, and may be ovoid and lobulated. On section they are solid and often have a yellowish-brown color. Some may be partially solid and show a few or many cystic cavities. Trabeculations are not an uncommon finding. The microscopic appearance is exceedingly variable. This statement is true not only for different tumors, but also for different parts of the same tumor and even of the same microscopic field. The most common variety is probably the folliculoma wherein the granulosa cells have the tendency to arrange themselves about small lumina, giving a resemblance of primordial follicles. Sometimes the spaces may be larger, thus making a picture resembling large mature follicles. Occasionally there are large diffuse fields of granulosa cells which show no folliculoid pattern, and this type is referred to as the diffuse or parenchymatous type. When there is considerable connective tissue invasion of the granulosa cell masses, there is a tendency for the formation of cylinders or columns of varying size which may anastomose with each other. This type is referred to as the cylindroma. As a matter of fact, it is unusual not to have some connective tissue

overgrowth into the tumor with the formation of many bizarre patterns. Rather infrequently one may find that the epithelial nature of the tumor tends to disappear, and a sarcomatous picture is prevalent. Very careful study of various portions of the tumor will tend to show areas of epithelial nature which will establish the diagnosis.

The thecoma, also a feminizing tumor, resembles the ovarian fibroma, but shows a definite yellowish color due to the fat in or between the cells. These tumors are firm and fibrous in appearance and usually are small in size. Occasionally they show a tendency to cystic degeneration. Microscopically, they show bundles of broad, spindle-shaped cells separated by connective tissue and hyaline plaques and having a tendency towards an epithelioid appearance. Sometimes a theca cell tumor is difficult to differentiate from a fibroma of the ovary by ordinary histologic methods; however, fat stains display in the former type doubly refracted fat in considerable amounts within the cells and to a lesser extent in the surrounding connective tissue. Occasionally granulosalike cells may be seen in these tumors, indicating again the probably common origin of granulosa and theca cells from the ovarian mesenchyme. It is of interest to mention at this point that both types of tumor cells may undergo changes into what are apparently lutein cells. Secretory changes and decidual formation may then be found in the endometria of the hosts.

There are two types of masculinizing tumors of the ovary; namely, the arrhenoblastoma and the adrenal cell rest tumor. These are quite rare. The arrhenoblastoma originates from male-directed cells which persist in the ovary. Although they are usually of moderate size, they may vary from minute to very large sizes. The outer surface is smooth, and the cut surface may have a gray to yellow color. They are usually firm, but may show large cystic cavities as do the other tumors. The histological appearance may be exceedingly variable. In the testicular adenoma the seminiferous tubules are quite perfect and the rete structures may also be present. The intermediate group shows only an imperfect attempt at tubule formation. Interstitial cells with characteristic fatty content may be present. The undifferentiated variety gives the picture of sarcoma. However, if numerous sections are made and careful search performed, cordlike arrangement of cells or fat-containing cells may be found.

Adrenal cell tumors of the ovary also vary in their size, but are usually quite small. They are soft and golden yellow in color. On histological examination their structure shows variations from adenoma, adenocarcinoma to perithelioma with large cells containing abundant clear cytoplasm.

The Brenner tumor is a benign neoplasm which arises from Walthard islands found in the ovary. This tumor may also vary from a microscopic size to a mass of considerable dimensions. Grossly, it is usually solid and looks for the most part like a fibroma. A cystic type also occurs. Microscopically, there are two essential components. These are the characteristic rests of epithelial cells and the fibromatous tissue surrounding such epithelial islands. The epithelial rests may be round or cylindrical, very small or quite large. The cells are large and polyhedral, contain small nuclei of ovoid shape, and do not suggest malignancy. Rather frequently there is central cystic degeneration of the epithelial rests, and occasionally pseudomucinous changes may occur in these cystic areas. It would appear that a small proportion of pseudomucinous cyst adenomas have their origin in Brenner tumors.

Dysgerminomas are bilateral in twenty to thirty-five per cent of cases. As a rule, they are comparatively large, frequently being described as the "size of an adult head." The tumor mass is usually lobulated and frequently peculiarly kidney-shaped; it is of a firm but elastic or doughy consistency. The cut section presents a homogeneous, friable, glistening, brainlike surface through which run scanty fibrous septa. Areas of yellowish discoloration indicate lipoid degeneration, which has frequently progressed to the stage of frank necrosis with the formation of broad zones of necrotic tissue and hemorrhagic cysts of varying size. The

microscopic picture of dysgerminoma is one of the most characteristic found among solid ovarian tumors. The tumor cells are large and round, ovoid or polygonal, with hyperchromatic, centrally-placed nuclei, and narrow, pale, and often translucent cytoplasm. Frequent mitotic figures appear. The cells are separated into groups by septa of loose, poorly-vascularized connective tissue, which nearly always is diffusely infiltrated with lymphocytes. The entire histological appearance is one of an undifferentiated, highly-malignant neoplasm, which closely approximates that found in seminoma of the testicle.

Clinical Characteristics

The special ovarian neoplasms can be grouped clinically according to their hormonal manifestations. The granulosa and theca cell tumors are feminizing in their effect. Arrhenoblastomas and adrenal cell tumors of the ovary have a masculinizing influence. Dysgerminomas and Brenner tumors have apparently neither feminizing nor masculinizing tendencies.

Granulosa cell tumors cannot be distinguished from theca cell tumors by their clinical characteristics. There is a tendency, however, for thecomas to appear in elderly women, whereas granulosa cell tumors may occur at any age. It is convenient to describe the signs and symptoms caused by the feminizing tumors before the onset of puberty, during the active sexual period, and following the menopause. Granulosa cell tumors are not an infrequent cause of precocious puberty in the young girl. An ovarian tumor which is demonstrable in a child with precocious menstruation and secondary sex development is usually a granulosa cell tumor. The first sign is a leucorrhea which later gives way to periodic bleeding. The uterus and the external genitalia quickly reach the stage in development equivalent to that expected during puberty. There is an associated acceleration in skeletal growth, mammary hypertrophy, and in the growth of axillary and pubic hair. During active sexual life the diagnosis of the feminizing tumor is more difficult, for the influence of the increased estrin secretion is not so manifest as during the prepubertal period. Menstrual irregularity characteristic of endometrial hyperplasia is apt to occur and may take the form either of amenorrhea or of prolonged and excessive menstruation or a sequence of these two. Sterility is expected on theoretical grounds and has been reported to occur.[16] In the postmenopausal period a feminizing tumor of the granulosa or theca cell type causes a recurrence of bleeding, which is periodic or pseudomenstrual, and which is thought to occur without ovulation. The uterus becomes enlarged, and the hyperplastic endometrium is thick and boggy. The breasts frequently enlarge and may contain a colostrumlike fluid. In all three age groups an excessive amount of estrin is found in the tumor, the blood, and the urine. It is generally accepted that the feminizing hormone responsible for the clinical characteristics associated with granulosa and theca cell tumors is elaborated by the neoplasms.

The masculinizing tumors are much rarer. In the Charity Hospital series of twenty-five special ovarian tumors we found only one arrhenoblastoma and one ovarian hypernephroma. The degree of masculinization which occurs with each arrhenoblastoma can be correlated with the degree of differentiation of the tumor itself. The more undifferentiated types display a much greater degree of change, whereas the adenoma testiculare ovarii originally described by Pick in 1905 usually is associated with no endocrine changes at all. The usual signs of masculinity, which accompany an arrhenoblastoma, are the sudden onset of amenorrhea after previous regularity, the development of a male type of larynx, and a coarser, deeper voice, a decrease in the size of the breasts, the falling out of the hair of the scalp to a point of baldness, and an increase of hair on the face, neck, abdomen, and lower extremities with a tendency toward acne, an angular male contour of the body, a male gait, and the hypertrophy of the clitoris to penislike proportions. The occurrence of these signs together with an ovarian tumor is sufficient to justify the diagnosis of an arrhenoblastoma. However, this syndrome may be approximated closely by

several other conditions. The masculinizing adrenal cortical tumors may cause almost an identical picture, whether they occur in the ovary or elsewhere. The state of pregnancy, the postclimacterium, and Cushing's pituitary basophilism are to be considered in the diagnostic problem. Removal of an arrhenoblastoma or of an ovarian hypernephroma results in retrogression of the male characteristics except where actual anatomic change has occurred as in the enlargement of the clitoris and of the larynx.

It is generally agreed that the Brenner tumor and the dysgerminoma elaborate no specific hormones. Because of its small size and the absence of associated clinical signs, the former is rarely diagnosed preoperatively. The high incidence of dysgerminomas among pseudohermaphrodites and in women with poorly-developed genitalia, however, gives an early lead to the diagnosis of this tumor. Low sexual potential in patients, other than pseudohermaphrodites, has been indicated by such common symptoms as amenorrhea, the delayed onset of menses, sterility, asthenia, oligomenorrhea, dysmenorrhea, genital and mammary hypoplasia, and infantilism. A large pelvic tumor in a pseudohermaphrodite or in a female with infantile genitalia suggests dysgerminoma, but the diagnosis is not so easily made in those women who have normal secondary sex characteristics. Aside from symptoms referable to a disturbance of hormonal balance, the complaints and findings are usually those due to a large pelvic tumor, which enlarges so rapidly that it attains a size sufficient to fill the lower abdomen in three to six months. Degeneration of the fast-growing mass frequently occurs and is sometimes responsible for fever, night sweats, and marked leucocytosis. The tumor is one of childhood and young adulthood, frequently having its onset early in puberty. The diagnosis, therefore, rests largely upon a consideration of the duration of symptoms, the age of the patient, the state of sexual development, and the presence of a rapidly-growing pelvic neoplasm, which can be palpated as a hard, elastic mass with an irregular, nodular surface.

The treatment of these various neoplasms is essentially surgical. With the exception of the Brenner tumor, all may become malignant; however, conservative surgical procedures are generally indicated unless there is present obvious malignant change as indicated by adhesions or actual extension of the tumor growth. The dysgerminoma has been found to be extremely sensitive to irradiation, but no conclusive results have been shown in irradiation of the other tumors.

Summary

1. Attention is called to an interesting group of ovarian neoplasms which display biologic activity.

2. In a series of ninety-eight solid ovarian tumors found in the files at Charity Hospital in New Orleans were twenty-five neoplasms belonging to this special group.

3. The histogenesis of these special tumors seems to be related closely to embryonal anomalies in the developing female gonad.

4. Pathologically, each member of the group may present the appearance of a malignant neoplasm; clinically, the overwhelming majority are benign. The outstanding clinical features are concerned with a tendency to feminization or masculinization of the host.

5. The treatment is essentially surgical.

REFERENCES

1. Collins, Conrad G.; Varino, George; and Weed, John C.: "Theca Cell Tumors of the Ovary." Journal of the American Medical Association, October 28, 1939, 113: 1634.

2. Dockerty, M. B.: "New Ovarian Neoplasms." Proceedings, Staff Meeting, Mayo Clinic, February 5, 1941, 16: 91.

3. Dockerty, M. B.: "Solid Ovarian Tumors." Proceedings, Staff Meeting, Mayo Clinic, February 12, 1941, 16: 104.

4. Fischel: Quoted by Schiller, Journal of Obstetrics and Gynecology, British Empire, 1936, 43: 1134.

5. Klaften, E.: Quoted by Seegar, loc. cit.

6. Long, Carroll H.; Ziskind, Joseph; and Storck, Ambrose H.: "Dysgerminoma Occurring in a Pseudohermaphrodite." Surgery, Gynecology, and Obstetrics, December, 1941, 73: 811.

7. Meigs, Joe Vincent: "Tumors of the Female Pelvic Organs." Pp. 304-309. New York: Macmillan Co., 1934.

8. Meigs, Joe Vincent: "Ovarian Tumors with Endocrine Significance." Annals of Surgery, 1935, 102: 834.

9. Meyer, Robert: "The Pathology of Some Special Ovarian Tumors and Their Relation to Sex Characteristics." American Journal of Obstetrics and Gynecology, 1931, 22: 697.

10. Novak, Emil, and Gray, Laman A.: "Clinical and Pathologic Differentiation of Certain Special Ovarian Tumors." American Journal of Obstetrics and Gynecology, February, 1936, 31: 213.

11. Novak, Emil, and Long, J. H.: "Ovarian Tumors Associated with Secondary Sex Changes: Granulosa Cell Carcinoma and Arrhenoblastoma." Journal of the American Medical Association, September 30, 1933, 101: 1057.

12. Russell, P. M. G.: "The Seminoma or Dysgerminoma of the Ovary." Journal of Obstetrics and Gynecology, British Empire, 1938, 45: 258.

13. Schattenberg, Herbert J.: "The Pathology of Certain Unusual Ovarian Tumors." New Orleans Medical and Surgical Journal, July, 1938, 91: 29.

14. Schattenberg, Herbert J., and Harris, Wm. H.: "The Pathology of Ovarian Tumors of the Granulosa, Adrenal, Brenner, Dysgerminoma, and Arrhenoblastoma Types." Southern Medical Journal, July, 1939, 32: 734.

15. Schiller, Walter: "Concepts of a New Classification of Ovarian Tumors." Surgery, Gynecology, and Obstetrics, April, 1940, 70: 773.

16. Schulze, Margaret: "Granulosa Cell Tumor of the Ovary." Western Journal of Surgery, Obstetrics, and Gynecology, March, 1939.

17. Seegar, G. E.: "Ovarian Dysgerminoma." Archives of Surgery, November, 1938, 37: 697.

18. Stadien, M. Lyon: "An Ovarian Hypernephroma." American Journal of Surgery, August, 1937, 37: 312.

19. Wolfe, Samuel A., and Kaminister, Sanford: "Embryonal Carcinoma of the Ovary." American Journal of Obstetrics and Gynecology, 1935, 29: 71.

DISCUSSION

DR. P. C. SCHREIER (Memphis): I think Doctor Long has given us more than a mere review of this interesting chapter in ovarian tumors. He has brought together the histogenesis and pathological description and interspersed comments on the controversial points. In so far as I know, this article will do more for us than most of the articles that have been published, and should serve as a very valuable reference when it is published.

This chapter in ovarian tumors is fascinating. It reads like a detective story. For many years the slides taken from these tumors were filed away in the laboratories of great institutions as cancers or fibromas of the ovary, but gradually there began to appear isolated instances of cases that did not behave according to Hoyle, as, for example, a tumor that might have been regarded histologically as cancer and yet the history revealed that this postmenopausal woman was having menstrual bleeding. I am sure that if we went far enough back in the history, we would find that this meant nothing to the original observers, but today when those reviews are reread, we see how the story was gradually being put together, and when Meyer of Germany finally brought all of the information to one compact heap, it was revealed that there were at least four major types of tumors that should be separated from the usual cancer and fibroma group of ovarian tumors.

Doctor Long has called our attention to these four major ones and to several of the minor ones, such as the thecoma and the adrenal cell tumor of the ovary.

As clinicians, we are mostly interested in two of these tumors, the granulosa cell tumor and the arrhenoblastoma. I confess that no individual will have the opportunity of having an extensive experience with this group of tumors, but the knowledge that they do exist may be of great value to him and to his patient. Particularly, for instance, as Doctor Long says, we must not treat a granulosa cell tumor as if it were a cancer, because that would mean the removal of the opposite ovary, and if we were dealing with a young girl who has precocious menstruation at the age of nine, ten, or eleven, or younger, because of the development of a granulosa cell tumor in an ovary, it would be a tragedy to operate on her for this tumor and, being suspicious that it might be a cancer, remove both ovaries. It is good medicine not to remove both ovaries if we are sure it is a granulosa cell tumor, but of course if it were a cancer, we would want to remove both ovaries.

That is of great importance in bearing in mind the possibility, and with the knowledge that granulosa cell tumor will cause precocious menstruation, we would be forearmed with the proper procedure.

In our experience at the John Gaston Hospital on the teaching service, we of course have been on the alert to look for these unusual tumors. Naturally, interns and residents get a big thrill when something of a bizarre nature comes into their wards. The most striking one that comes to my mind is the eighty-year-old blind negro woman—blind because of senile cataracts—who comes in complaining that she has started to menstruate again. We found a large tumor. It was not a brilliant stroke for everyone to conclude immediately that we were dealing with a granulosa cell tumor, which it proved to be. For years we would have been immediately suspicious of carcinoma of the fundus. Now? I would say no. The first thing to be thought of in dealing with postmenopausal bleeding is still carcinoma of the fundus; second, carcinoma of the cervix; and last, way down the line, is granulosa cell tumor, because it occurs only very rarely, yet it should be borne in mind when the physical signs suggest it.

In regard to arrhenoblastoma, which is that other very picturesque tumor that does biological tricks with the individual. I am sure that if the

story has not already been written, some imaginative mind will write one in which the principal culprit or murderer will be the victim of an arrhenoblastoma, resulting in a complete change of personality from female to male, and thus escaping detection. In our experience we have not run into a real arrhenoblastoma. However, it is quite frequent that the diagnosis is suspected. Why? When dealing with a woman who comes in complaining of some gynecological condition and it is noticed that there is an excessive hairy growth on her lip or face and the intern or resident discovers that she has a pelvic tumor of some kind, he always is enthusiastically excited over the fact, "Maybe we have an arrhenoblastoma."

I mention this because it brings up the question: Have we gotten on the trail of this annoying, disfiguring, hairy growth in women? Does the arrhenoblastoma open the door to the solution of this perplexing problem? At the present time the answer would be no. These patients who have the hairy growth and who have a pelvic lesion, possibly an ovarian enlargement, do not as a rule have arrhenoblastomas. It must be remembered that arrhenoblastoma causes other changes along with the hirsutes. One should give serious thought to the fact that the hairy growth is due to factors that we know nothing about.

DR. WILSON SEARIGHT (Memphis): One of the things that all of this study has done is to bring about a closer cooperation between the clinician and the pathologist, because, after all, arrhenoblastoma and granulosa cell tumor constitute what we would like to call a clinicopathological problem, and it is only with the aid of a good history, a good clinical record, coupled with an intelligent study of the affairs by the pathologist, that these matters are brought to light. We know very well that there are other things that can produce masculinization in a woman. Arrhenoblastoma is only one. Adrenal cortex tumors are another. Adrenal tumors themselves, basophilic adenomas of the pituitary, can do it. But we must realize that the close cooperation of the pathologist and the clinician is one of the most desirable things that we can possibly have.

Of course, we know that a great deal of the conjecture upon the histogenetic production of these things sometimes makes us think that our embryologic imagination has run wild. For instance, we had a tumor at the Baptist Hospital not many months ago. We did a differential stain and saw a great deal of lipoid material in the tumor itself, and due to the fact that it was not nearly so epithelial in its characteristics as it might have been, we made a diagnosis of theca cell tumor. That caused a great deal of discussion in the hospital, and as a result it was sent away. The diagnosis of thecomesonephroma came back. Now, of course, we know that a diagnosis of that kind is a combination of embryologic imagination plus intense clinical interest as well as cytological skill to be able to tell that this particular cell is not quite a theca cell but must be reclassed as a mesonephroma.

We know that Brenner tumors have in the past almost universally been diagnosed as fibromas of the ovary. They do not interfere, in my opinion, with the function of the ovary itself. I recall a patient whom I diagnosed as solid tumor of the ovary. She became pregnant. The tumor enlarged. I removed the tumor, and it turned out to be a Brenner tumor, and the corpus luteum of pregnancy was in the tumefied ovary, thus almost conclusively proving that Brenner tumors do not interfere with the function of the ovary until they probably reach rather large proportions.

One of the things that might be said in criticism of a study of this kind is that the histologic diagnosis of these tumors has almost overshadowed all other types of gynecologic pathology: if you cannot recognize granulosa cell tumor, Brenner tumor, dysgerminoma, or adrenal cortex tumor, you just do not know anything about gynecologic pathology. The occurrence is low; we do not see many of them. In a service that is close to a thousand cases a year we see very few of them. They are of importance; they are something that we must think about. The fact that many of them are malignant makes it doubly important, but at the same time there is a chance that the interest in this type of tumor has removed the lens of high power from such mundane, log-cabin things as salpingitis and inflammation and things that come under our observation almost daily.

I enjoyed the doctor's paper very much.

DR. CARROLL H. LONG (closing): I appreciate very much the gracious remarks of the two gentlemen who have discussed the paper.

I think that Doctor Schreier and Doctor Searight correctly have called attention to the importance of the other gynecologic conditions which may arise and confuse the diagnosis, particularly that of carcinoma. I am glad that that word of warning has been sounded this morning.

The interesting problem of the hairy patient which Doctor Schreider brought before us is really a fascinating one. I think that there is a great deal to be learned as yet about the chemical content of the various sexual hormones. There is a tendency now to believe that there is a close similarity between estrin, progestin, and testosterone, and we may find that there is a lack of proper formation of the female sex hormones in certain instances so that they act to form male characteristics. It is a fascinating field in which we have very little knowledge as yet.

The likening of this search to that of detective work I think is a very good one. A number of the men in the past have tried to find, by going through old pathological files, the number of solid ovarian

tumors which have appeared. That has been done, for instance, by Meigs in the Massachusetts General Hospital and by Russell at the University Hospital in London and by Klaften in Vienna and by Seegar at Johns Hopkins. Dockerty at the Mayo Clinic went back over 500 solid ovarian tumors which he was able to find in the Mayo Clinic files, and he found that approximately 100 of them were of this special type, showing that twenty per cent of all the solid ovarian tumors at the Mayo Clinic were of this special group. They may be more common than we expect, and I believe, as more investigators go back over their old material, we will have an increasing number of these tumors brought to light.

Doctor Searight was very wise in pointing out the necessity for careful history taking. It has been my experience in going over the Charity Hospital records for the last ten years to find that the histories were very deficient. Among the slides we found a number of these special tumors which had not been recognized; as a matter of fact, about seventeen of the twenty-five had not been recognized before we found them. The histories had not been taken in such a way that we could determine whether those patients had had changes in their secondary sex characteristics.

Dr. John H. Stokes has used the term "a high index of suspicion" in regard to syphilis, and I believe that that is a term which could be used as well here; that as we, as surgeons, gynecologists, and clinicians of all types, learn to have a high index of suspicion for this particular type of tumor, we will find more of them, and I believe that they will prove to be not nearly so uncommon as we now believe.

TREATMENT OF BURNS BY THE USE OF TRIPLE DYES*

CHARLES C. TRABUE, M.D., Nashville

It has been said that the knowledge and experience gained by the surgeons during the last World War have enabled the profession to save more lives in civil practice than were actually lost on the battlefields of that war. During the present war the British have had, unfortunately, all too much opportunity to treat large numbers of injured soldiers and civilians. Burns are among the most frequent of these injuries. Thus, it is not surprising that the English profession has already developed several new methods which are distinct improvements in the treatment of burns.

Last fall when Doctor Kirtley and I took our turn supervising the surgical service at the Nashville General Hospital, we were disappointed to find, as usual, that the wards were cluttered up with old burn cases. These patients had been in the hospital for many weeks or even months. Examination revealed that many of the burns had never become clean enough to graft and that many of those who had been grafted had an unsatisfactory result because of infection. There had been no standard routine used in the treatment of these cases. Tannic acid, "foille," various sulfonamide ointments, pastes and powders, saline baths, saline dressings, vaseline gauze, cod-liver oil ointment, and open treatment under the heat cradle had all been tried with varying, but in general unsatisfactory results. In an effort to improve this part of our service, we turned to the British literature and from it adopted the use of the triple dyes as a routine measure.

However, the local treatment of the burned area is only one of the problems with which we are concerned when confronted with a severely-burned patient. These other problems will be dealt with briefly before further discussion of the use of the triple dyes. Unless the patient is also properly treated, he may not survive sufficiently long for the treatment of the burn to make any appreciable difference.

*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1942.

The three main causes of death from burns are primary shock, secondary shock, and toxemia. Primary shock develops immediately, but usually responds readily to appropriate treatment and is very seldom fatal.

Secondary shock usually develops within two to four hours after the injury. It is this shock which accounts for about eighty per cent of the deaths from burns. The important characteristics of this condition are the changes in the blood and the fluid balance of the body. Davidson, in developing the tannic-acid treatment of burns in 1925, realized the importance of the great loss of body fluid from a burned surface. Blalock, in 1931, experimenting with burned dogs, found that the burned side gained in weight an amount equal to 3.3 per cent of the entire body weight of the animal. This represented an escape from the blood stream of fifty-seven per cent of the total blood plasma and is more than sufficient to cause a marked reduction in blood pressure. Blalock's calculations did not demonstrate the fluid that was actually lost from the body surface, but rather demonstrated what a tremendous shift there was within the body by the transudation of plasma from the blood stream into the body tissues around the burn. This transudation is due to an altered permeability of the capillary walls and is evidenced by the high red blood cell count, high hemoglobin, lowered plasma volume, and lowered blood pressure. These changes may quickly result in death from circulatory failure unless corrected by the proper treatment.

For many years one of the main tenets in the treatment of burns was that fluids must be forced. Water and juices were given freely by mouth, saline and glucose were given in enormous quantities under the skin, in the vein, and by proctoclysis. This seemed rational enough in the light of the knowledge that the blood was concentrated and that the patient was in shock and that he was losing fluids. Little did

we realize that we were making bad matters worse by forcing fluids. Pouring saline or glucose into the blood stream was worse than pouring water into a leaky bucket, for not only are the capillaries a "leaky bucket" which fail to retain the fluid thus administered, but the tissues into which it leaks are greatly damaged by this increased edema. We failed to realize that the shock was caused not so much by loss of fluid from the body surface, but rather by loss of plasma from the blood stream into the body tissues. Unless there is a marked external loss of body fluids, the need for water and electrolytes is only moderate as the excess fluid in the tissues should be available when the plasma osmotic pressure is restored to normal. The administration of excess saline, without plasma proteins, increases an edema already present. The administration of large amounts of water alone, without sodium salts, may result in a dangerous lowering of the extracellular electrolyte concentration, or water intoxication. This results because the lowered plasma volume and plasma protein concentration interfere with the normal renal defense of diuresis.

In the light of this knowledge it is not much more rational to give whole blood than it is to give saline. Transfusions of whole blood tend to increase the concentration of corpuscles, which is such a strong factor in the production of the circulatory failure.

Plasma, which has recently become so readily available to both the military and the civil surgeon, is the answer to the fluid problem in burns, and its use has decreased the mortality of war burns very considerably. The proteins which are present in the plasma make it far superior to any synthetically manufactured fluid, even though this fluid contains the proper electrolytes in the proper amounts. And the absence of the red blood cells makes it much more valuable than the whole blood. And after all, the loss of fluids has not been a loss of whole blood or of water or of saline or of glucose, but rather a loss of plasma.

Black, writing in the *British Medical Journal*, presents a table showing approximately how much plasma should be administered as determined by the patient's hemoglobin. This reduces the guesswork concerning the amount of plasma which should be given to each individual patient. The loss of plasma proteins from the blood continues for thirty to forty hours, and small repeated plasma transfusions may prevent excessive hemoconcentration during this period. After the fortieth hour the plasma deficit may be corrected by one large plasma transfusion.

The other ordinary measures used in combating shock must not be overlooked. Morphine in doses of one-third or one-half grains should be administered immediately to all adult patients to allay the pain and prevent the shock. If the local treatment cannot be carried out at once, it will often be necessary to repeat the morphine within two or three hours. The patient should be kept warm. Adrenal cortical hormone may be given intravenously repeatedly and oxygen administered by whatever means available.

In addition to primary shock and secondary shock, toxemia is a cause of death following burns. As a rule, this condition does not occur for several days and is due to the absorption of injured cells and tissues plus the presence of an infection of the burn. The best treatment is prevention which can be carried out by thorough cleansing of the wound and subsequent application of the antiseptic agents to be discussed later. Toxemia is manifested by the presence of high fever, rapid pulse, vomiting, headache, nervousness, irritability, albuminuria, and progressive circulatory failure. The transfusion of whole blood at this stage of the game is of more value than the transfusion of plasma or serum. The infection is likely to produce a secondary anemia which, of course, is not improved by plasma transfusions. Sulfanilamide may be of value since the offending organism is usually the hemolytic streptococcus.

The local treatment of burns was revolutionized in 1925 by the publication by Davidson of his results with the tannic-acid treatment. The mortality from burns was

greatly reduced. It would certainly be a great mistake to discard the principles underlying the tannic-acid treatment of burns, but it is well enough to recognize the shortcomings of the method and seek a similar method which has all of the advantages and not so many disadvantages. This improvement seems to have been found in the triple-dye method of treatment which was introduced by Aldrich of Boston in 1937. Previously Aldrich had used gentian violet and found that it protected the burn against all gram-positive organisms. After investigating the aniline and azo dyes, he found that the addition of brilliant green and neutral acriflavine to the gentian violet produced a very powerful antiseptic. In broth cultures it will not let gram-positive bacteria grow in a dilution of 1:1,000,000 or gram-negative in a dilution of 1:10,000.

This mode of treatment has been used extensively in Britain and the results have been enthusiastically reported by several surgeons. One of the most comprehensive articles was that published by Surgeon Rear Admiral Wakeley in *Surgery* for August, 1941. We have used the method routinely at the Nashville General Hospital since last October, and the results have certainly been superior to those obtained with previously-used routines. I am not attempting in this paper to give any statistics. Burns in civil life vary widely in location, size of area burned, depth of burn, and causative agents, and the individuals burned vary in age, size, sex, and previous general physical condition, so that an attempt to evaluate any given method of treatment is likely to be misleading, unless an enormous series of cases are carefully studied and reported.

It is extremely unfortunate that so many uninformed persons have the opportunity to apply first aid to severely-burned patients. So often the patient is admitted to the hospital covered with grease or some other home remedy which must be entirely removed, and this with a great deal of difficulty and harm to the patient before any satisfactory treatment can be instituted. But it should be emphasized at this point that no matter what first-aid treatment has been used and no matter how long the patient has been delayed in reaching the hospital, even if there is a delay of several days, the patient must be taken to the operating room, anesthetized, cleaned up, and tanned. There is no part of the treatment more important than this cleansing of the wound, no matter what chemical agent is to be used in the treatment. It is failure to properly cleanse the wound that so often leads to infection and pus under the coagulum with a resultant toxemia and sepsis. Many patients are lost because of this failure, and those who do survive are greatly delayed in their healing. There is an increased amount of fibrous tissue scarring which produces deformity and often decreased mobility of the adjacent joints. The soft, flexible burn scar is the one which has healed with a minimum of infection.

After the wound has been cleansed, the dye is applied. The formula used by Wakeley is gentian violet 1:400, brilliant green 1:400, and neutral acriflavine 1:1,000. The solutions are mixed in equal proportions in distilled water. They can be made up very quickly by any druggist, and the solution is considerably more stable than tannic-acid solution. There are several other formulas in general use, and one or more of these dyes has been mixed with tannic acid. Ointments and jellies are made, particularly with the gentian violet, usually one per cent in strength. Something of the virtue of these will be mentioned later. The dye may be applied with an atomizer or spray, camel's-hair brush, or gauze mop. We prefer the spray. It is better to extend the dye over a small area of normal skin than it is to leave any of the burned area uncovered. If an electric hair drier is available, it furnishes an excellent means of drying the dye quickly, but this refinement is not at all necessary. When dry, a light flexible tan or coagulum is formed, which in first- and second-degree burns remains until the underlying area is healed. In third-degree burns the tan usually separates at the end of ten days or two weeks and a clean granulating surface is presented. This should be treated with dressings kept constantly moist with sterile saline for a day or two and then grafted. Too much

can hardly be said for the value of a skin grafting at the earliest possible date. The longer the grafting is delayed, the greater will be the resultant scarring, deformity, and limitation of motion. The dye is reapplied every successive day for five days with particular attention to any cracks or fissures or moist areas which may occur. The very strictest aseptic precautions should be carried out at all times in the care of these cases. It is ideal to treat these patients in separate rooms or cubicles to prevent cross infections. This is not always possible, but it is possible for the surgeon who carries out the treatment to use sterile gown, gloves, and mask. No dressings are applied, but the patient is returned to bed and covered with a heat cradle, leaving out only the head. The burned areas should be protected from the sheets with sterile towels.

The triple dyes were first substituted for tannic acid because of their antiseptic action. This is truly a great advantage, and a number of surgeons have reported a decrease in the incidence of infection, the severity of the infection, and in the sepsis manifested by the patients who were so treated. It is true that the tan or coagulum formed by the triple dyes is not so thick or so inflexible as that formed by tannic acid, but this difference is advantageous. It has been suspected that in the deep burns the tannic acid penetrates beyond the burned area and destroys some of the normal underlying cells. It is this penetrating action which makes the tan so slow to separate and so difficult to remove in certain cases. The tan produced by the dyes can be separated from the wound more easily and with less destruction of the underlying tissue. It is seldom necessary to even use soaks in removing the tan. The flexibility of the triple-dye tan is also an advantage. With tannic acid, movement of the joints is definitely limited, and any attempted motion may produce cracks and fissures, which allow the admission of bacteria to the burned area beneath the tan. With the more flexible dye coagulum, considerable motion of the joints may be maintained without the production of cracks. Tannic-acid solution must always be made up fresh, but the dyes are considerably more stable and can thus be kept available for immediate use. Wakeley has used the two methods concomitantly on the same patients and he states that the results are undoubtedly far superior with the triple dyes and the patients complain of less pain.

Tannic acid when used on the hands forms a glove, which, when it dries and contracts, produces pressure on the vessels of the fingers. This pressure may be sufficient to cause an ischemic necrosis of the finger tips, and this unfortunate accident is said to have occurred frequently. It is difficult to say whether this necrosis of the finger tips is due to the original burn or to the constricting action of the tan. At any rate, the tannic acid stands accused and should never be used on extensive burns of the hands. The coagulum of the triple dyes is not strong enough and is too elastic to cause necrosis, but at the same time it is safer never to produce a coagulum of any sort which completely encircles an extremity or a digit. Tannic acid is not very satisfactory in burns of the face because there are so many orifices, because of danger to the eyes, and because the tan has a tendency to produce ectropion and other contractures. The triple dyes or gentian violet alone are ideal for facial burns.

The question of the use of the sulfonamide drugs in burns, either locally or by mouth, is still unsettled. The use of sulfanilamide locally seems very logical since it is the hemolytic streptococcus with which we have to deal most frequently in burns and since this drug has been demonstrated to have so much value in the local treatment of other types of wounds. Although there are numerous reports of its use, it has not as yet been very generally adopted and is not without some danger. Hooker and Lam have reported attaining a blood level of thirty-three milligrams in twenty-four hours after applying sixty grams of the powder to a relatively small burn. This seems to be an unnecessarily large dosage of the drug, but the report does demonstrate how readily the drug is absorbed from the burned surface and how much danger there

is of producing intoxication in this way. Burned patients frequently vomit, and it is certainly undesirable to increase the vomiting. It seems rational that considerable benefit and little harm could arise from sprinkling some six to eight grams of the drug on the burned surface before application of the dye and following this up daily with the application of small quantities of the drug at any cracks or moist places which may appear. Others have suggested the use of the drug by mouth for the first four or five days. Recently the use of a sulfadiazine spray has been reported, but its ultimate value has not as yet been proved.

No first-aid treatment is necessary for those patients who can be taken immediately to a hospital. In those cases where hospitalization is not immediately available, the preferred treatment is the application of a liberal quantity of one per cent gentian violet ointment, which is then covered with sterile gauze dressings.

Phosphorus burns occur occasionally in military and industrial practice. A two per cent solution of copper sulfate should be immediately applied. This combines with the phosphorus and produces an inert chemical substance which thus prevents any further damage.

In summary, I would like to urge the use of plasma in the specific quantities indicated for each individual case and the definite limitation of all other fluids. The triple dyes are a great improvement over tannic acid in burns, because they form a thin, flexible, elastic tan and because of their strong antiseptic properties.

DISCUSSION

DR. JAMES A. KIRTLEY, JR. (Nashville): Doctor Trabue's paper is of tremendous importance to all of us who are called upon to treat burns, and it is especially timely to those of us who anticipate entering the armed services at an early date. It is my impression that the plan of treatment outlined by the National Research Council and recommended to the armed services is superior to the customary treatment of burns in civil practice. This was brought out at a recent meeting of the American College of Surgeons at Nashville. There are several points worthy of emphasis. First, a patient with extensive burns presents two problems. He should be considered as a patient having a large, open wound. He is also a patient who either is in shock or potentially in shock.

Doctor Trabue has mentioned the fluid shift. It is far more important to prevent this fluid shift than it is to try to combat it, and this must be done at a very early date in those first two or three hours. This fluid shift, as he brought out, is due to loss of protein plasma, and since plasma is lost, it is best to replace the loss with plasma.

There has been a good deal of work done recently on isolating the albumen fraction of protein. This albumen fraction is the largest fraction and is less likely to escape through the damaged capillaries. As was mentioned last night at the meeting, the Navy is using a good deal of this concentrated albumen fraction in very small ampules, about fifty cubic centimeters, which represents the concentration from 250 cubic centimeters of plasma or approximately a pint of whole blood. This would seem to be particularly valuable in the early, immediate prevention of this fluid shift.

As Doctor Trabue mentioned, these patients should be followed by frequent hemoglobin determinations and hematocrit determinations if possible in order to arrive at a definite estimate of the amount of plasma necessary. One should not make the mistake of not giving enough plasma to these patients. I think it is of tremendous importance to emphasize again a mistake that all of us have made in recent years of forcing fluids, 5,000 to 6,000 cubic centimeters, on these patients. We unquestionably have been washing out what little plasma protein remained in the vascular system, washing it into edematous tissues, and there is no way to recover it.

As was mentioned, there is plenty of fluid in the tissues, and if we could build up the osmotic pressure in the vascular bed, we could cause a return of this fluid into the vascular system.

I think it is rarely wise to give over 1,500 or 2,000 cubic centimeters of saline in twenty-four hours to patients with very severe burns, and 2,000 cubic centimeters have been adopted as a maximum amount by both the Army and the Navy, and this amount will insure normal urinary output.

Along with these measures of combating shock, such as morphine, heat, as mentioned, it, of course, is very important to prevent external loss of fluid also, and this can be done by the use of some solution which causes coagulation and seals off those weeping surfaces.

I think it is of great importance to emphasize that these patients should be taken to an operating room at once where everyone in the operating room has a cap and face mask, which covers both mouth and nose, and sterile gown and gloves, and they should be carefully cleaned with white castile soap and large amounts of water, with the use of absorbent cotton to gently clean these surfaces. The surfaces should then be irrigated, and by sharp dissection blisters should be excised and rolled-up epidermis trimmed away. The wound should then

be dried with towels or by a hair drier, and then irrigated again with normal saline.

From our rather limited experience last fall with both charity and private cases, I believe that the use of triple dye is superior to the use of tannic acid. This dye is best put on by a spray, as Doctor Trabue said. It should be resprayed every two hours in the first twenty-four hours in order to get a dry, complete coagulum. The patient should then be placed under a lighted cradle on clean sheets and should be carefully observed each day for moist places appearing near the joints or anywhere beneath the surface of the burn, and these moist places should be immediately sprayed, in as much as they offer a portal of infection.

This treatment is applicable to patients with second-degree burns, not severe enough to hospitalize them, and I have had several cases in which this has worked out very nicely.

It has been my practice to give sulfathiazole by mouth on the second or third day if the temperature is 103 or over. These patients lose about two-thirds of their body sulphur, and one of the best ways, of course, of replacing that is by a liberal diet of eggs, which would be contraindicated with the immediate use of sulfonamides.

There has been some work done at Johns Hopkins on the use of sulfadiazine with tri-ethylanolamine as a local application, and that seems to offer definite possibilities. The intravenous use of amino acids has also been suggested and seems to have definite possibilities.

I want to mention again that if a burn is treated as carefully as a surgical wound, infection will be minimal and papillae and hair follicles will not be destroyed, so that a second-degree burn will not be converted into a third-degree burn because of infection.

Since triple dye has such a high bactericidal and bacteriostatic effect on both gram-positive and gram-negative organisms, it would look like a progressive step in the treatment of burns had been made.

DR. ALVIN BERNARD ROSENBLOOM (Jackson): This scholarly paper was particularly enjoyed by me since Doctor Trabue was one of my classmates in medical school.

The use of tannic acid in the treatment of burns has been most important in focusing the attention of the medical profession on the coagulation type of therapy. A few comments suggested by the paper just presented would seem relevant on this subject.

About three years ago Dr. Bernard Fantus in the *Journal of the American Medical Association* described a solution containing tannic acid, antiseptics, and electrolytes that increased the acid's tanning action and kept it indefinitely fresh. This he called compound solution of tannic acid.

Doctor Davidson, who originally popularized this treatment of burns, has modified the method by the application of silver nitrate (ten per cent) shortly after the use of the tannic acid. This forms a more flexible eschar, shortens the tanning time, and is more antiseptic. If the latter is used, the compound solution must be modified, since the chlorides it contains would precipitate the silver ions. This combined treatment represents such an advance over the original method that Doctor Trabue's comment would be most appreciated.

It might be mentioned in passing that the coagulation treatment is applicable to other than heat burns as well as certain abrasions and minor lacerations.

DR. CARROLL H. LONG (Johnson City): I have been very pleased to hear Doctor Trabue's paper on this timely and important subject. I think he has rightly called attention to the importance of the maintenance of fluid balance. John Scudder of the Presbyterian Hospital in New York, along with others, a few years ago called attention to this, and at the same time stressed the great rapidity with which fluid balance can change from hour to hour after a severe burn. It was his advice and his procedure to measure the state of fluid balance hourly by means of taking hematocrit and plasma protein readings. He pointed out that by the use of the Barbour and Hamilton falling drop apparatus, plasma protein determinations could be made in approximately ten minutes, and in this way the surgeon could keep in constant touch with the state of fluid balance in the burned patient. It seems to me that such a system is preferable as a control method of fluid balance to any set rule-of-thumb, giving certain doses of plasma protein according to certain set rules.

I should like to call attention to this. I think it is a distinct improvement on the older conception of fluid balance control during burns.

I wish to say again that I have greatly enjoyed Doctor Trabue's paper.

DR. CHARLES C. TRABUE (closing): I appreciate the discussion of Doctor Kirtley, Doctor Rosenbloom, and Doctor Long.

Concerning Doctor Rosenbloom's question of the treatment of burns other than thermal burns, I think, with the exception of one or two specific types of burns, they can all be treated to advantage in pretty much the way that I have outlined. Any severe acid or caustic burn, of course, should be treated by completely washing it off, flooding it, and using any specific antidote, and after that has been washed off, if there is any destruction of the skin, you can use the dye. I treat phosphorus burns with copper sulfate solution, and then they can be treated with the gentian violet or triple dyes.

Electrical burns, burns caused by contact with a strong electric current, usually are somewhat of a different problem. Here we generally have a small burned area which is very deep. Frequently these burns can best be treated by immediate, complete excision of the destroyed tissue and application of an immediate skin graft.

As to the use of silver nitrate in combination with tannic acid, I do think that it adds something to the treatment, but I also think that it takes away something. The silver nitrate is something of an antiseptic agent and doubtless destroys bacteria, but it also doubtless destroys a great many living cells, and I think in a lot of these burns we have a wide burned area in which there are many living epithelial cells around the hair follicles, and they are not obvious to the naked eye, but if this area is treated as Doctor Kirtley has suggested, as we would treat any other open wound, if it is treated gently, cleaned up, and a mild antiseptic applied, and then covered and kept clean, I think these cells will have a chance to live and to spread into islands of skin and in many cases prevent the necessity of a large skin graft at a later date. As I say, I believe the silver nitrate in combination with the tannic acid does something to destroy these cells.

I appreciate Doctor Long's discussion concerning the fluids, and I think it is a contribution. The table which Doctor Black of England has compiled is not an extremely accurate way of knowing how much plasma to give, but it does give us something to work on. We cannot take a person's hemoglobin at ten o'clock this morning and see how much plasma to give for the next twenty-four hours. Immediately after the burn the hemoglobin should be determined, the indicated amount of plasma given, and in two hours another hemoglobin should be determined to see which way progress is being made, and then again plasma repeated, so that it is not a matter of making one hemoglobin examination a day, or anything of that sort, to determine how much plasma to give over a long period of time. It is a determination that has to be repeated, and the plasma has to be given repeatedly.

PERFORATING WOUNDS OF THE ABDOMEN*

ELKIN L. RIPPY, M.D., Nashville†

Never in the history of the world has there been such a concentrated effort on the part of all nations to produce and use implements of war that deal out death and destruction. Fortunately for mankind the medical profession has not conscripted its energy in an effort to produce ways and means of destroying life, but is devising new methods and medication to relieve suffering and prevent deaths resulting from these war injuries.

In spite of the many advances in the treatment of shock and peritonitis, no more effective method of disabling and killing has been devised than by perforating the abdominal cavity by either bullets or knives.

Although the knife has been in continuous use as a weapon since before the time of Christ, when troops engage in hand-to-hand combat, the knife, whether held in the hand or fixed on the end of the gun, is still the most effective weapon.

The greatest opportunity for a careful study of a series of cases of perforating wounds of the abdomen is afforded in those cases that occur in civil practice rather than on the battlefield where lack of immediate first aid, transportation, and hospital facilities result in death in those cases that are severely shocked before they can be given the benefit of surgery. Also, the censorship is so strict and the United Nations' efforts have met with such disastrous results that no statistics could be kept or salvaged to let us know the results of the present treatment of perforating wounds of the abdomen in the field of battle.

Since the incidence of penetrating wounds of the abdomen is so rare in most parts of the United States, most doctors have had little or no experience with this type of case unless they were old enough to have been in World War Number One. It is, therefore, imperative that all doctors, regardless of their age, make a thorough study of the management of perforating wounds of the abdomen, for there has been such a radical change in the method of material attack with its parachute troops, quick-striking mechanized units, and the bombing and machine gunning of towns hundreds of miles in the interior that much of the responsibility for the care of the injured rests on the shoulders of the civilian doctor and hospital.

The incidence of penetrating wounds of the abdomen in Nashville is high, and this review is based on a study of 527 cases in which the peritoneal cavity had been penetrated by either a bullet or knife. To further analyze this series of cases, there were thirty-seven cases that reached the hospital alive but died before they could be explored. In the 490 cases in which exploration was done, there were 227 deaths, or a mortality of 46.5 per cent. In the 356 cases of visceral perforation resulting from bullets, there were 210 deaths, or a mortality of 58.9 per cent. In seventy-six cases of visceral perforation resulting from knife injuries, there were twelve deaths, or a mortality of 15.7 per cent. In fifty-eight cases in which the peritoneum was penetrated by a knife blade without perforation, there were five deaths, or a mortality of 8.6 per cent.

It is readily seen that the mortality from perforations resulting from bullets is four times as high as when the perforation is the result of being pierced by a knife blade. Therefore, the statistics in the two types of cases will be kept separately and compared.

Wounds that penetrate the peritoneal cavity should be explored at the earliest possible moment because of the possibility of injury to some abdominal organ or vessel. In the cases in which perforation or hemorrhage has occurred, any delay in the beginning of the exploration increases the chance of generalized peritonitis and also increases the degree of shock. In advising exploration to ascertain whether the peritoneal cavity has been penetrated, no diagnostic skill or experience is needed in those cases of bullet injuries where a line connecting the entrance and exit of the bullet passes

*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1942.

†Major, Medical Corps, U. S. Army. Stationed at Maxwell Field, Alabama.

through the abdominal cavity, and in knife wound no skill is needed in diagnosing penetration where there is evisceration of some organ or where a probe can be passed into the peritoneal cavity. However, the greatest amount of experience and judgment is needed in diagnosing the cases that have penetration without gross evidence, and to wait for clinical evidence of either shock or beginning peritonitis is to invite disaster.

There are several factors that determine the amount of interperitoneal damage, and they are as follows: in gunshot fire, first, the size; second, the velocity, and third, the contour and composition of the missile. In knife wounds the factors are: first, the length of the knife blade and the force with which it is driven into the abdomen; second, the thickness and muscle development of the abdominal wall, and third, the position of the victim and the amount of struggling he does while the blade is in situ.

The type of weapon used, the age, sex, color of the patient, and the viscera or vessels perforated are all factors influencing the mortality which are beyond the surgeon's control. Nevertheless, we should have a thorough knowledge of the importance of these factors as an influence on the end results so that we may better plan our method of treatment and make a more accurate prognosis.

The stamina of youth to withstand shock and combat infection is clearly demonstrated in this study, which shows that the mortality increases steadily with the decades of life.

The presence of blood in the peritoneal cavity was recorded and the amount of hemorrhage was divided into three groups: the small hemorrhage group, 500 cubic centimeters or less; the moderate hemorrhage, from 500 to 1,000 cubic centimeters; and the large hemorrhage group, 1,000 cubic centimeters or more. The fatality rate increased steadily with the amount of hemorrhage and shows convincingly that the amount of hemorrhage is the greatest individual factor in determining the mortality.

Peritonitis was next to hemorrhage as a cause of death, and the viscus perforated was an important factor in the determination of the severity of the peritonitis, because of the normal variance of the bacterial content of the different organs. The mortality increases when more than one organ is perforated as the number of holes and degree of destruction of the organs increases and as the site of the perforation descends in the intestinal tract. The lowest mortality was in perforation of the stomach and increased with the descent in the intestinal tract.

It is surprising to find that evisceration occurred in sixty-two or 46.2 per cent of the total number of cases cut, but more surprising is the fact that the mortality in those eviscerated was only 11.2 per cent as against a mortality of 13.8 per cent in those cases not eviscerated. The reason for the lower mortality in those cases eviscerated was: first, there was no question as to the diagnosis and therefore no delay on the part of the victim in getting to the hospital, and also no delay on the part of the hospital personnel in beginning the operation; and second, when the knife blade is driven straight in, there is more danger of perforation of the intestines and mesenteric vessels than when the knife blade is slashed at an individual and makes an incision quite similar to the surgeon's incision with the resulting evisceration.

In contrast to the uncontrollable factors influencing the mortality are the procedures under the surgeon's control, namely, early diagnosis, quick surgical intervention, choice of anesthetic, operative technic, length of procedure, preoperative and postoperative management. The mortality of perforation wounds of the abdomen can be lowered by the improvement in the management of the controllable procedures.

The first and greatest problem is to determine whether the abdominal cavity has been penetrated by the bullet or knife blade. This at times presents a very difficult problem, and in many cases the correct diagnosis cannot be made without exploration. It has been the practice at the Nashville General Hospital, where the greatest number of these cases occurred, to advise exploration on all cases where there existed any question of doubt as to the depth of the wound, and

never to wait for clinical signs to make your diagnosis.

Immediate exploration is advised in the cases of bullet injuries if the point of entrance or exit is in the region of the abdominal cavity, and in the cases of knife wounds in those cases with evisceration, or where a probe can be passed into the peritoneal cavity, or in those cases showing evidence of shock. It has been shown conclusively by the reports of all men who have investigated this subject that hemorrhage is the greatest cause of shock in these cases, and in severe hemorrhage, death will result if hemorrhage is not controlled and the blood volume restored.

In the doubtful cases of injury to the peritoneum produced by the knife blade the following procedure is advised: first, in the emergency room the wound is examined and enlarged if necessary to try and ascertain the depth. If it is found that the blade has penetrated the fascia and muscle, the patient is admitted to the hospital for further exploration. In surgery, using local anesthesia, the wound is enlarged and the muscle retracted so that the peritoneum can be carefully examined for evidence of injury. If it is found that the peritoneum has been penetrated, the patient is given a general anesthetic and a careful exploration done. This exploration can be through the site of your diagnostic incision, or else a standard incision is chosen that will allow careful examination of the abdominal organs.

If the patient is not in too deep a degree of shock, a flat X-ray plate of his chest and abdomen is made in those cases where the point of entrance of the bullet or knife is in the upper abdomen. In many cases it is impossible clinically to determine whether the bullet or knife blade has penetrated the abdominal or thoracic cavity. The flat plate usually shows free air in the thoracic cavity but rarely shows the presence of pneumoperitoneum even when there is intestinal perforation, as the amount of air that escapes is too small for detection except in the cases of rupture of the stomach or first part of the duodenum and sometimes the colon.

The time elapsing from injury to the beginning of the operation was accurately tabulated, and the results showed convincingly the advantage of early operation. In those patients shot and operated on within a period of two hours, the mortality was 58.1 per cent, and the fatality rate increased steadily with the elapse of time until within an interval of six to nine hours the mortality rate was 66.6 per cent. This increased mortality with elapse of time was also true of the knife wounds.

There cannot be established a rule as to the amount of blood that has to be lost before the patient develops a severe degree of shock. It is safe to assume that any patient that has lost a quart or more of blood is in a serious condition and should have his blood volume restored at the earliest possible moment. However, in the past it has been a difficult task to find suitable donors in time to combat shock. This problem is now solved by giving plasma, both before and during the operation. The merits of plasma are too well known to be described. It is sufficient to say that plasma increases the blood volume to a level that permits these severely injured patients to be given the benefit of exploration.

When exploration has once been started, regardless of the patient's condition, amount of hemorrhage, or the number of perforations to close, the operator should not become careless in his examination, too hasty in his technic, or too rough in the handling of the intestines. The inexperienced, the hasty, or careless operator is more likely to overlook perforation and bleeding vessels, and it is not of much value, in racing against time trying to get the patient back to the ward alive, to close three or four perforations and leave one not closed.

Exploration should be done at the earliest possible moment, when it is felt that the patient has sufficiently recovered from shock to withstand an operation with a fair degree of safety. Experience has taught that hemorrhage must be controlled as soon as possible, since blood loss is the chief cause of shock in gunshot or knife wounds of the abdomen.

In opening the abdomen, a standard incision is advised that will offer the best exposure of the organs under suspicion of being perforated. The anesthesia should be of such a depth that, when the peritoneum is incised, abdominal packs are not necessary to restrain the intestines into the peritoneal cavity, since fighting the intestines increases shock, promotes hemorrhage, and squeezes more of the intestinal contents into the peritoneal cavity. If no bleeding vessel or organ is noted on superficial examination, the small intestines are examined, as they are the most likely to be injured and to have the greatest number of perforations. If a perforation of the small intestines is seen before systematic search begins, the opening should be closed, leaving the suture long with a hemostat attached to the suture so as to serve as a landmark. If no perforation is seen at first glance, the landmark should be established by placing a long suture with a hemostat attached to the end of the suture in a bloodless area in the mesentery, and then search both proximally and distally for perforations. This method prevents unnecessary manipulation of the intestines and the handling of the same portion of the gut twice that is necessary when the operator uses either the ligament of Trietz or ileocecal junction as the landmark. Next, a systematic examination of all the abdominal organs is made.

Before the abdomen is closed, it is advisable to aspirate all of the free blood from the peritoneal cavity, as the blood in those cases perforated will be mixed with intestinal contents and serve as a good culture medium. It is a good practice to aspirate the blood even in those cases where no perforation occurred, for when coagulation takes place with the formation of clots, it takes considerable time to be absorbed and may prolong the postoperative course.

I began to use the sulfonamides intraperitoneally on April 17, 1938, first using prontosil, but for the past two years I have used eight grams of sulfanilamide in the peritoneal cavity in the region of the perforation. The abdomen is then closed without drainage, except that a wick is placed in the wound down to the peritoneum, also, sulfanilamide crystals are placed into the wound before the muscles and fascia are closed. The advantages of using sulfanilamide in the peritoneal cavity are too well known at this time to warrant discussion, but I wish to emphasize the fact that postoperatively you should not become too eager to try to maintain too high a concentration in the blood stream. These patients are desperately ill, and we do not wish to hinder their chance of recovery by an overdose of the drug. It seems that these patients do better if a concentration of between ten and twelve milligrams is maintained in the blood stream.

The efficiency of any method of treatment is the end results obtained. What improvement, if any, has been obtained in the results of the cases occurring in Nashville during the year 1941 as compared with the years preceding? The general average for gunshot wounds for the nineteen years was 58.9, whereas the mortality for 1941 was 31.9, which is a remarkable lowering of the mortality. The mortality in knife wounds was the lowest of any other series reviewed. The number of cases during 1941 is too small to prove anything definite, but it has given us encouragement to continue this plan of treatment in those cases of the future.

DISCUSSION

DR. GILES A. COORS (Memphis): Doctor Rippy has surely chosen a timely subject in this war-ridden world, and it is certainly gratifying and illuminating to see an honest group of statistics with comparatively high mortality admitted.

If the patient is in any condition to secure a history of the mode of injury and the relations of urinary and bowel emptying to the injury, it may have important bearing on the amount of contamination and the likelihood of the organs involved. For instance, in a recent defecation with emptying of the colon, it may produce less peritoneal contamination following a puncture of the colon than would result from the passing of an object through the colon filled with fecal matter. The bladder may even be missed by foreign bodies if it is collapsed after urination and also the amount of damage to the bladder is not likely to be as great as would be if the force were transmitted through a bladder filled with noncompressible urine.

The pain is a very variable factor, depending a great deal on circumstances under which the injury was sustained and the psychogenic makeup

of the individual. For instance, many men shot in battle and in the heat of a rage have been known never to feel the wound, only later to discover from surface injuries and bleeding that they have been injured at all.

There is no doubt in my mind that there are individuals in whom pain does not register to an unbearable degree so acutely as it does in other individuals. I can remember distinctly amputating a finger on a person who absolutely refused any kind of anesthesia, who during the operation showed no evidence of experiencing any pain of a marked degree.

Pain is not always a reliable indication as to the site of injury. For instance, in lower pelvic injury, all the pain may be in the legs, and in upper abdominal injury, the pain may be radiated to the neck along the course of the phrenic nerve. Complete evisceration has been known to occur without appreciable pain, and the injured persons walked considerable distances to institutions for help with only the occasional peristaltic pains which are followed by adynamic ileus, which eases the peristaltic pains.

Nausea and vomiting are a very inconstant finding and vary according to the injured person's normal tendencies to nausea and vomiting following trivial injuries. Vomiting of blood even in stomach wounds is rare.

Bladder and rectal tenesmus with frequent and painful emptying is almost a constant symptom of injuries in these organs. Again, it is rare to see massive passage of rectal blood following injuries to rectum and lower colon.

There is frequently-made mention in the literature of so-called "Cullen Sign," which is characterized by a reddish-brown discoloration at about the navel which is seen in intraperitoneal hemorrhage. In my observation in penetrating wound of the abdomen and also in ruptured ectopic pregnancies, this has been an inconstant and unreliable sign.

Abdominal rigidity by no means constantly indicates intra-abdominal injury, since I am satisfied that all of us have seen marked abdominal rigidity in the very beginning of pneumonia and trauma to the chest. A complete absence of rigidity in the face of obvious intra-abdominal injuries is a most unfavorable sign.

Crepitus in the abdominal wall may be due to emphysema from a damaged lung; the sucking in of air which follows the negative pressure of a projectile in its tract; or, it may be gas bacillus infection.

A rectal examination is most essential and frequently very revealing if there are present rents or blood. Preliminary X-ray examination of the abdomen is always desirable and could be made immediately by a portable machine and give valuable information such as location of the missile, the presence of free gas in the peritoneal cavity, and the amount of ileus. It is my opinion that intermittent fluoroscopy far exceeds the usefulness of electromagnets in removing metallic bodies.

Doctor Rippy is imminently correct in suggesting a prompt exploration with meticulous care and technic and the unhesitating mobilization of suspected organs which are partially fixed, such as colon, duodenum, and stomach, following possible injuries in the fixed areas.

Doctor Rippy's interesting observation, that the longer the exploratory operation the lower the mortality, should serve only as a mental jog to be thorough, but I know of no place in surgery that there is less excuse for indecision and piddling. As would be expected, the stab wounds would naturally yield a lower mortality than those produced by high velocity projectiles. Doctor Black's report in the British Medical Journal graphically demonstrates that the damage following the track of a high velocity projectile is not confined to the track, but causes devitalization and semidevitalization as far as three inches from the track of the projectile.

In summing the improvement in mortality rates in the most recent years, I believe it is not due particularly to any surgical technic or diagnostic acumen, but I believe it is due entirely to three things; our immediate access to commercial dried plasma, blood bank serum, plasma, and blood, together with the judicious use of the sulfanilamides and duodenal suction.

It is interesting to see the summary from the John Gaston Hospital of this city, pertaining to penetrating wounds of the abdomen from January, 1933, to 1941. In that time there are only a total number of 584 cases, total deaths 261, with a mortality rate of forty-four per cent, which compares very favorably with Doctor Rippy's mortality rate during the last year of forty per cent.

Below are tabulated the organs involved and the mortality in each.

PENETRATING WOUNDS OF THE ABDOMEN

Summary 1933 Through 1941

Total number cases	584
Total deaths	261
Mortality (per cent)	44

Diagnosis	*Number Cases*	*Number Deaths*	*Per Cent Deaths*
Wound of liver	61	18	30
Wound of kidney	38	8	22
Wound of ureter	2	1	50
Wound of intestines	239	118	49
Wound of bladder	15	2	13
Wound of spleen	13	8	61
Wound of stomach	55	35	63
Wound of abdomen	161	71	44

DR. ELKIN L. RIPPY (closing): It is true in Nashville now and it is also true in most cities that plasma is available for all patients, and I think that this lowering of the mortality in recent years, as the doctor has summarized, is not all due to sulfonamides. We could say this is the result of

sulfonamides being placed intraperitoneally, and publish it, and the charts would look good, but this is not true, for we find that only a very small per cent live to get into the peritonitis stage, and the greatest number die of shock and hemorrhage. The improvement can be due to three factors: First, consciousness on the part of all individuals as they operate or treat these cases that this may be you tomorrow, and you want to know all you can about the condition. This war makes us think. Another factor is that attending men have given more attention to it than resident physicians who used to operate in the middle of the night. The second factor in lowering the mortality is sulfonamide intraperitoneally. Third is giving plasma before and after operation, which allows a lot of these cases to be explored successfully and get back to the ward alive, where they can be given treatment for peritonitis.

MADISON RURAL SANITARIUM AND HOSPITAL

MEDICAL AND SURGICAL AND DENTAL UNITS

Both acute and chronic medical cases are treated.

Well-equipped surgical laboratory, pathology, hydro and physiotherapy departments maintained.

Thirty-six-hour diagnosis clinic maintained.

Associate Physicians — Lew Wallace, M.D., David Johnson, M.D., G. A. Droll, M.D., J. C. Trivett, D.D.S. Cyrus C. Kendall, M.D., Pathologist; Frances Dittis, Ph.D., Dietitian; Gertrude Lingham, R.N., M.A., Director of Nursing.

●

PSYCHIATRIC UNIT

Adequate facilities for the separation of serious mental diseases from the milder nervous disorders.

Rational methods of treatment are used including hydrotherapy, metrazol, occupational and recreational therapy.



E. A. SUTHERLAND, M.D., *Superintendent*
J. E. SUTHERLAND, M.D., *Assistant Superintendent*
W. H. HILGERS, *Business Manager*
Ten Miles from Nashville at Madison, Tenn. Telephone, Nashville, 3-3445

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in four categories as follows: first, those who have been commissioned and are on duty; second, those who have been commissioned and are awaiting orders; third, those who have applied for a commission and are awaiting action by the proper authorities; fourth, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Murlin Nester	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Cannon	R. C. Van Hook	Auburntown
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Chester	Hunter M. Steadman	Henderson
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	C. G. deGutierrez-Mahoney	Nashville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	J. K. Kaufman	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville

*Deceased.

Davidson—Jas. A. Loveless—Nashville
Davidson—J. P. Lowe—Nashville
Davidson—Sol Lowenstein—Nashville
Davidson—Jas. R. McMillan—Nashville
Davidson—Robt. H. Magruder—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—James O. Barker—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Hamblen—M. J. Bellaire—Morristown
Hamblen—Robert A. Purvis—Morristown
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Milton C. Semoff—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar
Hardeman—Wiley D. Lewis—Bolivar
Hardeman—M. J. Stewart—Whiteville
Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville

Hawkins—A. S. Yates—Rogersville
Haywood—Robert C. Berson—Brownsville
Henry—J. W. Didcoct—Paris
Henry—Arthur C. Dunlap—Paris
Henry—J. C. McKissick—Paris
Henry—Geo. H. McSwain—Paris
Jefferson—William B. Malcolm—Dandridge
Jefferson—Frank L. Milligan—Jefferson City
Knox—A. J. Weber—Bearden
Knox—Malcolm F. Cobb—Concord
Knox—B. B. Mitchell—Fountain City
Knox—Charles M. Armstrong—Knoxville
Knox—Spencer Y. Bell—Knoxville
Knox—R. G. Brashear—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—E. E. Carrier—Knoxville
Knox—Jack Chesney—Knoxville
Knox—L. W. Chesney—Knoxville
Knox—H. S. Christian—Knoxville
Knox—H. E. Christenberry, Jr.—Knoxville
Knox—Sam M. Cooper—Knoxville
Knox—T. P. Day—Knoxville
Knox—W. A. DeSautelle—Knoxville
Knox—T. B. Drinnen—Knoxville
Knox—Richard N. Duffey—Knoxville
Knox—J. Gilbert Eblen—Knoxville
Knox—Jas. B. Ely—Knoxville
Knox—Frank Faulkner—Knoxville
Knox—Glenn D. Grubb—Knoxville
Knox—Geo. G. Henson—Knoxville
Knox—Oliver W. Hill, Jr.—Knoxville
Knox—C. R. Huffman—Knoxville
Knox—C. E. Irwin—Knoxville
Knox—Willard J. Irwin—Knoxville
Knox—H. H. Jenkins—Knoxville
Knox—J. O. Kennedy—Knoxville
Knox—A. H. Lancaster—Knoxville
Knox—R. P. Layman—Knoxville
Knox—J. H. Lesher—Knoxville
Knox—J. D. McCullough—Knoxville
Knox—Wm. T. McPeake—Knoxville
Knox—J. L. Montgomery—Knoxville
Knox—Wm. S. Muse—Knoxville
Knox—E. P. Nicely—Knoxville
Knox—Frank O. Nichols—Knoxville
Knox—Ralph Nichols—Knoxville
Knox—B. M. Overholt—Knoxville
Knox—Jos. B. Parker, Jr.—Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr.—Knoxville
Knox—Herschel Penn—Knoxville
Knox—Jarrell Penn—Knoxville
Knox—H. L. Pope—Knoxville
Knox—John S. Powers, Jr.—Knoxville
Knox—Jos. L. Raulston, Jr.—Knoxville
Knox—Hugh C. Reaves—Knoxville
Knox—J. S. Ruffin, Jr.—Knoxville
Knox—A. B. Shipley—Knoxville
Knox—P. D. Smith—Knoxville
Knox—J. M. Stockman—Knoxville
Knox—Geo. W. Tharp—Knoxville
Knox—Phil Thomas—Knoxville
Knox—Fred West—Knoxville
Knox—Leon J. Willien—Knoxville
Lake—W. T. Rainey—Tiptonville
Lauderdale—J. H. Nunn—Ripley
Lauderdale—W. Val Sanford—Ripley
Lawrence—L. C. Harris, Jr.—Lawrenceburg
Lincoln—R. E. McCown—Fayetteville
Lincoln—Ben H. Marshall—Fayetteville
Lincoln—M. C. Woodfin—Fayetteville
Lincoln—E. S. Leek—Petersburg
Loudon—F. E. Hufstedler—Lenoir City
Loudon—Avery Leeper—Lenoir City
McMinn—S. B. McClary, Jr.—Etowah
McMinn—A. W. Reeser—Athens
McMinn—Lester H. Shields—Athens
McNairy—T. N. Humphrey—Selmer
McNairy—H. O. Mason—Adamsville
Madison—L. D. Farragut—Bemis
Madison—H. H. Herron—Bemis
Madison—Roderick C. Webb—Bemis
Madison—C. H. Brown—Jackson
Madison—W. B. Camp—Jackson
Madison—J. E. Douglass—Jackson
Madison—R. S. Hellmann—Jackson
Madison—Frank A. Moore—Jackson
Madison—Carl Rogers—Jackson
Madison—A. R. Taylor—Jackson
Madison—J. R. Thompson, Jr.—Jackson
Madison—P. E. Wylie—Jackson
Madison—Stevens Byars—Mercer
Marshall—A. L. Cooper—Chapel Hill
Marshall—H. B. Disharoon—Lewisburg
Maury—W. N. Cook—Columbia
Maury—Robin Lyles—Columbia
Maury—J. B. Miller—Columbia
Monroe—D. F. Heuer, Jr.—Sweetwater
Monroe—R. M. Price—Sweetwater
Montgomery—J. A. Culbertson—Clarksville
Montgomery—John H. Ledbetter, Jr.—Clarksville
Morgan—R. A. Steadman—Wartburg
Obion—Hal E. Bennett—Troy
Obion—Edward W. Barksdull—Union City
Obion—R. M. Darnall—Union City
Overton—H. B. Nevans—Livingston
Pickett—Floyd B. Hay—Byrdstown
Polk—Henry S. Harris—Benton
Polk—J. H. Lillard—Benton
Polk—H. H. Hyatt—Copperhill
Putnam—H. H. Taylor—Cookeville
Putnam—R. L. Akin—Monterey
Roane—L. A. Killeffer—Harriman
Roane—G. D. Schuessler—Oliver Springs
Roane—F. Davis Owings—Rockwood
Robertson—J. C. Lunderman—Orlinda
Robertson—W. P. Stone—Springfield
Rutherford—Harvey W. Carter—Murfreesboro
Rutherford—Thos. G. Gordon—Murfreesboro
Sevier—Charles E. Pack, Jr.—Sevierville
Sevier—R. M. Perry—Sevierville
Shelby—J. H. Adler—Memphis
Shelby—R. Roger Anderson—Memphis
Shelby—Chas. G. Andrews—Memphis
Shelby—J. M. Aste—Memphis
Shelby—Edward R. Atkinson—Memphis
Shelby—Chas H. Avent—Memphis
Shelby—J. C. Ayers—Memphis
Shelby—James M. Bethea—Memphis

Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—James M. Brockman—Memphis
Shelby—W. T. Braun—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Harold Feinstein—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—R. A. Hennessey—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingraham—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Richard King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Geo. E. Paullus, Jr.—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—Hugh R. Raines—Memphis
Shelby—S. L. Raines—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Chas. G. Robinson—Memphis
Shelby—Wm. A. Runkle—Memphis
Shelby—P. B. Russell, Jr.—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—B. S. Taley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis
Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis
Shelby—J. E. Watson, Jr.—Memphis
Shelby—Julian K. Welch, Jr.—Memphis

Shelby—S. I. Wener—Memphis
Shelby—Horace G. Williams—Memphis
Shelby—W. L. Wilhelm—Memphis
Shelby—Harwell Wilson—Memphis
Shelby—John M. Wilson—Memphis
Shelby—J. E. Wilson—Memphis
Shelby—C. Frank Yates—Memphis
Sullivan—J. W. Erwin—Blountville
Sullivan—Tom Kuhnert—Bristol
Sullivan—John Marcy—Bristol
Sullivan—G. W. McCall—Bristol
Sullivan—B. W. Mongle—Bristol
Sullivan—L. B. Snapp, II—Bristol
Sullivan—F. L. Alloway—Kingsport
Sullivan—R. W. Asthalter—Kingsport
Sullivan—H. O. Bolling—Kingsport
Sullivan—R. H. Brown—Kingsport
Sullivan—H. S. Burem—Kingsport
Sullivan—P. W. Cox—Kingsport
Sullivan—John B. Hamilton—Kingsport
Sullivan—R. B. Howard—Kingsport
Sullivan—K. R. Kiesau—Kingsport
Sullivan—M. D. Massengill, Jr.—Kingsport
Sullivan—J. F. Morton—Kingsport
Sullivan—R. G. Nichols—Kingsport
Sullivan—W. B. Payne—Kingsport
Sullivan—Raymond A. Steadman—Kingsport
Sumner—P. M. Huggins—Gallatin
Sumner—Benjamin A. Warren—Gallatin
Tipton—N. L. Hyatt—Covington
Tipton—J. S. Ruffin, Jr.—Covington
Tipton—O. J. Swisher—Covington
Unicoi—R. H. Harvey—Erwin
Unicoi—W. C. Humbert—Erwin
Unicoi—H. L. Monroe—Erwin
Union—Norman H. Rucker—Luttrell
Washington—C. M. Creech—Johnson City
Washington—H. B. Fuqua—Johnson City
Washington—C. S. Gresham—Johnson City
Washington—W. D. Hankins—Johnson City
Washington—Harry Myron, Jr.—Johnson City
Washington—W. L. Poole—Johnson City
Washington—W. G. Preas—Johnson City
Washington—Hugh F. Swingle—Johnson City
Washington—Charles P. Wofford—Johnson City
Washington—H. B. Cupp—Mountain Home
Washington—John Busey—Mountain Home
Washington—Ernest Marcus—Mountain Home
Wayne—Dexter L. Woods—Waynesboro
Weakley—Paul W. Wilson—Dresden
Weakley—Madison H. Buckley—Martin
Williamson—W. F. Roth, Jr.—Franklin
Wilson—O. R. Hill—Lebanon
Wilson—James McFarland, Jr.—Lebanon
Wilson—W. K. Tilley—Lebanon

DOCTORS WHO HAVE RECEIVED COMMISSIONS AND AWAITING ORDERS TO ACTIVE DUTY

County *Name* *Address*

Davidson—Newton A. Cannon—Nashville
Davidson—Nathan P. Horner—Nashville
Hamilton—Walter Buckner, II—Chattanooga
Hamilton—Carl A. Hartung—Chattanooga
Hamilton—Eugene F. McCall—Chattanooga
Knox—R. H. Butler—Knoxville
Knox—Sam P. Davidson—Knoxville
Knox—Peter J. Flippin—Knoxville
Knox—D. T. Hoey—Knoxville
Knox—R. E. Lawson—Knoxville
Knox—L. C. Ogle—Knoxville
Knox—J. W. Riggs—Knoxville
Knox—John A. Range—Knoxville
Knox—Jacob M. Williams—Knoxville
Madison—Roy M. Neudecker—Jackson
Shelby—H. E. Atherton—Memphis
Shelby—Joseph D. Cleveland—Memphis
Shelby—Paul Hill Goodman—Memphis
Shelby—Harry Z. Landis—Memphis
Shelby—Robert E. Lawson—Memphis
Shelby—Ira F. Porter—Memphis
Shelby—Bryant S. Swindoll—Memphis

DOCTORS WHO HAVE APPLIED AND WHOSE COMMISSIONS ARE PENDING

Anderson—J. L. Sergeant—Lake City
Campbell—C. E. Ausmus—Jellico
Davidson—S. W. Ballard—Nashville
Davidson—Theodore W. Davis—Nashville
Davidson—T. Emerson Simpkins—Nashville
Dyer—Robt. G. Latimer, Jr.—Dyersburg
Hamblen—Chas. S. Crook—Morristown
Knox—E. M. Eddington—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Wiley R. Smith—Knoxville
Knox—John Szewczyk—Knoxville
Lincoln—James V. McRady—Fayetteville
Shelby—M. W. Adams—Memphis
Shelby—R. F. Bonner—Memphis
Shelby—L. L. Carter—Memphis
Shelby—Clyde V. Crosswell—Memphis
Shelby—J. E. Holmes—Memphis
Shelby—D. W. Oelker—Memphis
Sullivan—W. C. Correras—Bristol

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff—Clinton
Cannon—Carl E. Adams—Woodbury
Anderson—A. J. Butler—Clinton
Carter—John L. Chesnut—Elizabethton
Carter—E. T. Pearson—Elizabethton
Coffee—Wm. M. Minnis—Manchester
Davidson—E. E. Anderson—Donelson
Davidson—R. Z. Linney—Madison
Davidson—Joe E. Sutherland—Madison College
Davidson—J. J. Ashby—Nashville
Davidson—Edward H. Barksdale—Nashville
Davidson—Lynch D. Bennett—Nashville
Davidson—Randolph A. Cate—Nashville
Davidson—David W. Hailey—Nashville
Davidson—Andrew N. Hollabaugh—Nashville
Davidson—Thos. M. Jordan—Nashville
Davidson—Carl Kirchmaier—Nashville
Davidson—N. B. Morris—Nashville
Davidson—James C. Overall—Nashville
Davidson—James N. Owens—Nashville

Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville
Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville
Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—Rae B. Gibson—Greeneville
Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Morgan—Wm. E. Gallion—Oakdale
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Charles K. Lewis—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

JANUARY, 1943

EDITORIAL

It is of the utmost importance that the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians immediately has the name of any doctor who really is willing to be dislocated for service, either in industry or in overpopulated areas, and who has not been declared essential to his present locality. This is necessary if the medical profession is to be able to meet these needs adequately and promptly. We urgently request that any physician over the age of forty-five who wishes to participate in the war effort send in his name to the State Chairman for the Procurement and Assignment Service in his state.

FRANK H. LAHEY, M.D., Chairman,
Procurement and Assignment Service.

Statement by Dr. James B. Stanford, President of the Tennessee State Medical Association

The physicians of Tennessee have done their part in keeping Tennessee's place in history as the Volunteer State, and many of our members are serving in the various armed forces here and abroad. Many more of us, not so fortunate as to be accepted, are putting forth extra effort to maintain the high standard of medical practice for the civilians of the state.

Those reports in the press that people of this section are suffering for want of medical service emanate from sources which desire to destroy the system of medical practice we have built up over many years. They have even in some areas attempted to manufacture an epidemic of influenza to support their position. At this season there is always a high percentage of acute colds, but no epidemic of any sort has broken out in the state.

The component societies of the State Association have organized for civilian defense and the same organizations will take care of such disasters as flood, powder plant explosions, and epidemics.

There is no record of a failure on the part of the medical profession of the United States to meet any obligation placed upon it, and this emergency shall be no exception. We realize, of course, that we shall be required to work harder than ever before and that we would be physically safer in combat than here, but that will not deter us in our efforts to supply the people of this state with the medical service they have been accustomed to.

The Medical Care of the Civilian Population

The publicity that has been given to the shortage of doctors in a few distress areas has had the unfortunate effect of creating something in the nature of a hysterical reaction in communities where no such distress exists.

It should be a source of satisfaction to the doctors and the people of Tennessee that the Procurement and Assignment Service for Tennessee, in cooperation with the Selective Service Administration for the state, have functioned in such a way that our quota of doctors for the armed services has been more than met without the creation of distress areas. There is, therefore, no need for panic on the part of the civilian population. There is need for cooperation on the part of civilian patients. The first item on the list of cooperative activities is that of accepting the fact that there are fewer doctors in the state now than a year ago and that the war is to blame for that state of affairs.

Secondly, cooperate by giving the doctor a chance to be of service. If his time is taken up in travel, then it reduces the care he can give. If his sleep is broken, he will be less efficient. A lot of annoying telephone calls to ask about the state of health of somebody takes up his time and does nobody any good. So spare his effort and energy; save him; you may need him.

Our men in service have more doctors per thousand men than is the case with either of our Allies, and there are still more doctors at home than is the case with any of our Allies. More doctors are being produced each year and more will be produced each year until the emergency ends than was the case last year or the year before.

Furthermore, it will be a good idea to dismiss the thought that medical service can be rationed as coffee, potatoes, and tires. Coffee and potatoes can be weighed and measured. Their food content or value can be determined with accuracy by chemical means, but nobody can make a similar appraisal of this thing we call "medical care," and it would be a fine thing if the agitators engaged in promoting the adoption of radical change in medical practice would "pipe down" during the war. They certainly are not helping to win the war, and are disturbing those who are making a major contribution and a substantial sacrifice to win it.

A Doctor's Plea in Wartime

The following poem seems apropos and is reproduced by the kind permission of The Borden Company:

The doctor's life, in times like these,
Is not exactly one of ease.

For, on the home front, each M.D.
Is busier than any bee!

He's shouldering the burden for
The other docs, who've gone to war.

This leaves your doctor precious little
Time to sit around and whittle.

And indicates the reason why
You ought to help the poor old guy.

HOW?

1. By keeping yourselves in the best of condition,
   Thus avoiding the ills that demand a physician.

2. By phoning him promptly when illness gives warning,
   But—unless very serious—waiting till morning.

3. By cheerfully taking whatever appointment
   He makes for prescribing his pills or his ointment.

4. By calling on him where he works or resides
   Instead of insisting he rush to your sides.
   (Of course, he'll come 'round when there's need for his service,
   But spare him the trip when you're nothing but nervous.)

5. And, last but not least, you can help in this crisis
   By carefully following doctors' advices.

If these commandments you'll adhere to,
A doctor's heart you will be dear to!

(Copyright, 1942, by The Borden Company)

A Conference on Medical Care

The chairman of the Procurement and Assignment Service in Tennessee, Dr. W. C. Dixon, called together a group of leading citizens for a conference which was held on January 6, 1943, at Nashville.

A wide variety of interests were represented, such as dentistry, labor, industry, transportation, medical education, public health, the press, women's organizations, insurance, the Selective Service System, Chambers of Commerce, agriculture, etc.

The conference had two purposes: first, to familiarize these leading citizens with developments that have taken place up to date, and second, to secure their counsel and cooperation in meeting problems of the future, the magnitude of which cannot *now* be estimated.

The public has a large stake in this ques-

tion of medical care. Industry and labor have a large stake. Doctors themselves have a large stake. The doctor sees the problem from the point of view of the person who delivers the care. He has knowledge the layman does not possess. The layman on the other hand has the point of view of the person who receives the care, and it is important that these two points of view receive proper recognition and consideration in the near and remote future.

Medical and Dental Expenses Deductible from Income Tax

The following provisions of the Revenue Act of 1942 are quoted for the information of the reader. No interpretation or explanation is attempted by the editor of the Journal.

Revenue Act of 1942

Section 127. — Deduction for Medical, Dental, Etc., Expenses.

(a) Allowance of Deduction. — Section 23 (relating to deductions from gross income) is amended by inserting at the end thereof the following new subsection:

"(x) Medical, Dental, Etc., Expenses.— Except as limited under paragraph (1) or (2), expenses paid during the taxable year, not compensated for by insurance or otherwise, for medical care of the taxpayer, his spouse, or a dependent specified in section 25(b) (2) (A) of the taxpayer. The term 'medical care,' as used in this subsection, shall include amounts paid for the diagnosis, cure, mitigation, treatment, or prevention of disease, or for the purpose of affecting any structure or function of the body (including amounts paid for accident or health insurance).

"(1) A husband and wife who file a joint return may deduct only such expenses as exceed five per centum of the aggregate net income of such husband and wife, computed without the benefit of this subsection, and the maximum deduction for the taxable year shall be not in excess of $2,500 in the case of such husband and wife.

"(2) An individual who files a separate return may deduct only such expenses as exceed five per centum of the net income of the taxpayer, computed without the benefit of this subsection, and the maximum deduction for the taxable year shall be not in excess of $2,500 in the case of the head of a family, and not in excess of $1,250 in the case of all other such individuals."

(b) Items Not Deductible. — Section 24(a) (relating to items not deductible) is amended by striking paragraph one and inserting in lieu thereof the following:

"(1) Personal, living, or family expenses, except extraordinary medical expenses deductible under section 23 (x)."

State Meeting

The Board of Trustees took action on January 10, 1943, to the effect that a scientific meeting of the Tennessee State Medical Association not be held in 1943 as scheduled.

It is regarded as desirable that the House of Delegates meet, and it was suggested that the president fix the date of the meeting within the month of April, 1943.

The above action was based upon the following correspondence:

December 23, 1942.

Mr. Joseph B. Eastman, Director
Office Defense Transportation
Washington, D. C.

Dear Sir:

The Tennessee State Medical Association is scheduled to meet in Nashville, April 13, 14, 15, 1943.

I noticed a statement in the press some days ago to the effect that you are requesting such meetings not to be held if they involve intercity travel.

We were scheduled to meet in Knoxville, Tennessee, but the meeting place was changed to Nashville in order to reduce the amount of travel to attend the meeting.

It is important that the session be held if it is consistent with the needs of the present situation. The association, I am sure, will accede to your wishes in the matter.

I, therefore, ask for an expression from you before further steps, in preparation for the meeting, are taken.

Most respectfully,

(Signed) H. H. Shoulders, M.D.,
Secretary-Editor.

EXECUTIVE OFFICE OF THE PRESIDENT, OFFICE FOR EMERGENCY MANAGEMENT
WASHINGTON, D. C.

The Office of Defense Transportation
Joseph B. Eastman, Director
December 28, 1942.
File: 612-9

Dr. H. H. Shoulders, Secretary
Tennessee State Medical Association
Nashville, Tennessee

Dear Doctor Shoulders:

Thank you for your letter of December 23 to Mr. Eastman which has been referred to this division.

The policy of the Office of Defense Transportation as regards conventions and meetings involving travel was recently outlined in a press statement by Mr. Eastman. A copy of this statement is attached.

In conformity therewith, we are asking that all groups planning to meet in coming months reappraise the importance of their meetings in the light of the war effort, and unless there is definite conviction that the meeting will make a positive contribution to our direct war job, it should be cancelled. You and your other officers are in the best position to determine the importance of your own meeting; we can merely advise that from a transportation standpoint, any travel-stimulating activities cannot be sanctioned. From a transportation standpoint, therefore, it would be most helpful in our general program to provide expedited movement for our armed forces if you could see your way clear to cancel the proposed meeting of the Tennessee State Medical Association.

Very truly yours,
H. F. MCCARTHY, *Director*,
Division of Traffic Movement.

FIFTH ANNUAL CONGRESS ON INDUSTRIAL HEALTH

Sponsored by the Council on Industrial Health, American Medical Association, January 11-13, 1943, Palmer House, Chicago, Illinois.

The following program is reproduced here in order to impress the membership with the importance of a wide variety of subjects which touch this large problem of industrial health. It is thought also that it may serve as an index or reference.

Members may wish to secure reprints of a number of these papers. It will hardly be possible to publish all of these papers at an early date in the *Journal of the American Medical Association.*

MONDAY MORNING, 9:00

Registration. No fee. Red Lacquer Room.

MONDAY MORNING, 9:45

STANLEY J. SEEGER, M.D., *Presiding*

"Report of the Council on Industrial Health," Stanley J. Seeger, M.D., chairman, Texarkana, Texas.

"The Physician and Industrial Mobilization," Paul V. McNutt, Washington, D. C., chairman, War Manpower Commission.

"Further Notes on Preventive Medicine in Industry," John H. Foulger, M.D., Wilmington, Delaware, director, Haskell Laboratory of Industrial Toxicology.

"Employee-Management Cooperation for Industrial Health," Wendell Lund, Washington, D. C., director, Labor Production Division, War Production Board.

"Procurement and Training of Professional Personnel for Industrial Health Service," Clarence D. Selby, M.D., Detroit, chairman, Subcommittee on Industrial Health and Medicine, Office of Defense Health and Welfare Services. Red Lacquer Room.

MONDAY NOON, 12:30

Luncheon—Room 18.

"Industrial Hygiene Abroad," William A. Sawyer, M.D., Rochester, New York, medical director, Eastman Kodak Company; William P. Yant, Pittsburgh, Mine Safety Appliances Company.

MONDAY AFTERNOON, 2:00

LEROY U. GARDNER, M.D., *Presiding*

"Ocular Signs of Industrial Poisoning," Roy S. Bonsib, New York, chief safety inspector, Standard Oil Company (New Jersey).

Common Infections in Industry

Joint presentation by the Council on Pharmacy and Chemistry and the Council on Industrial Health, American Medical Association.

"Newer Concepts in the Prevention and Treatment of Wound Infections," Austin E. Smith, M.D., Chicago, secretary, Council on Pharmacy and Chemistry.

"Recognition, Prevention, and Essential Treatment of Occupational Dermatitis, with Particular Reference to Oil Dermatitis and Folliculitis: Report of the Committee on Occupational Dermatoses, American Medical Association," Harry Foerster, M.D., chairman, Milwaukee.

"Respiratory Infections in Industry: Joint Report Prepared by the Council on Pharmacy and Chemistry and the Council on Industrial Health,"

Chester S. Keefer, M.D., Boston, Wade professor of medicine, Boston University School of Medicine; director, Evans Memorial, Massachusetts Memorial Hospitals.

Programs of Immunization for Industrial Workers: (1) "Vaccines and Serums: Indications and Procedure," James P. Leake, M.D., Bethesda, Maryland, medical director, Epidemiological Section, U. S. Public Health Service. (2) "Problems of Organization and Administration," Leverett D. Bristol, M.D., New York, health director, American Telephone and Telegraph Company. Red Lacquer Room.

MONDAY EVENING, 6:30

ANTHONY J. LANZA, M.D., *Presiding*

State Societies Dinner and Round Table

Informal dinner and round-table discussion, intended primarily for the personnel of committees on industrial health in state and county medical societies. Subjects for discussion will be:

"Local Organization for Industrial Health Services" and "Recent Experiences in Postgraduate Medical Education." Crystal Room.

TUESDAY MORNING, 9:00

WARREN F. DRAPER, M.D., *Presiding*

"Industrial Physical Examinations: Report of the Committee on Physical Examinations of the Council on Industrial Health, American Medical Association," Harvey Bartle, M.D., chairman, Philadelphia.

"The Toxicity of Military Explosives," Lemuel C. McGee, M.D., Wilmington, Delaware, medical director, Hercules Powder Company.

"Optimum Hours of Work," James G. Townsend, M.D., Bethesda, Maryland, chief, Division of Industrial Hygiene, National Institute of Health.

Health Problems Associated with the Changing Character of the Work Force

"Women in Industry: Preliminary Report of the Committee on Health of Women in Industry, Section on Obstetrics and Gynecology, American Medical Association," H. Close Messeltine, M.D., chairman, Chicago.

"Prehabilitation: A Report and Recommendations," William A. Sawyer, M.D., Rochester, New York, chairman, Industrial Health Committee, Section on Preventive and Industrial Medicine and Public Health, American Medical Association.

"The Older Worker," Anton J. Carlson, M.D., Chicago, professor of physiology, University of Chicago. Red Lacquer Room.

TUESDAY NOON, 12:30

Luncheon and Round Table—Room 9.

Sponsored by the Committee on Industrial Ophthalmology, American Medical Association.

"Experiences in Setting up a Visual Program for Safety and Production in a War Plant," H. Glenn Gardiner, M.D., Chicago, medical director, Foote Brothers Gear and Machine Corporation.

TUESDAY MORNING, 9:00

RAYMOND HUSSEY, M.D., *Presiding*

Symposium on Medical Relations in Workmen's Compensation

Joint presentation by the Bureau of Legal Medicine and Legislation and the Council on Industrial Health, American Medical Association.

"Report of the Committee on Workmen's Compensation of the Council on Industrial Health," Raymond Hussey, M.D., chairman, Baltimore.

"Workmen's Compensation: The Shape of Things to Come," Henry D. Sayer, New York, general manager, Compensation Insurance Rating Board.

"Control of Medical Testimony: The Minnesota Plan," Ernest M. Hammes, M.D., St. Paul, chairman, Committee on Medical Testimony, Minnesota State Medical Association; professor of nervous and mental diseases, University of Minnesota Medical School.

"Allergy: Its Place in Compensation Procedure." Report of the Committee on Workmen's Compensation of the Society for the Study of Asthma and Allied Conditions as Revised and Approved by the Advisory Board of American Allergists.

"Practical Problems in Framing Occupational Disease Legislation." Round-table discussion. Room 17.

TUESDAY NOON, 12:30

Luncheon—Room 18.

"Value of Qualified Physicians in the Personnel of Workmen's Compensation Commissions," Verne A. Zimmer, Washington, D. C., director, Division of Labor Standards, U. S. Department of Labor.

TUESDAY AFTERNOON, 2:00

ROBERT T. LEGGE, M.D., *Presiding*

Industrial Medical Practice and the Emergeney

"Correlation of Industrial Medical Organization with Community Emergency Medical Service," Ward L. Mould, M.D., Washington, D.C., surgeon (R), U. S. P. H. S.; medical adviser, Industrial Plants, Office of Civilian Defense.

"The Health and Safety Program of the U. S. Maritime Commission and the U. S. Navy in Contract Shipyards," Philip Drinker, Boston, professor of Industrial Hygiene, Harvard School of Public Health.

Streamlining Industrial Medical Service

"How to Get Along with Less Help": (1) 'Legitimate Shortcuts in Routine Service' and (2) 'Can We Secure and Train Technical Assistants for Certain Routine Industrial Health Procedure?' Edward C. Holmblad, M.D., Chicago, managing director, American Association of Industrial Physicians and Surgeons.

"Outline of Procedure for Nurses in Industry: Report by the Council on Industrial Health, American Medical Association," Orlen J. Johnson, M.D., Chicago, Council on Industrial Health.

"Putting Your Medical Records to Work," M. H. Manson, M.D., New York, medical director, New York Telephone Company.

"Processing Industrial Physical Examinations," Fred B. Wishard, M.D., Anderson, Indiana, medical director, Delco-Remy Division, General Motors Corporation.

"Resuscitation: A Review and Demonstration," Hart E. Fisher, M.D., Chicago, medical director, Chicago Rapid Transit Company. Red Lacquer Room.

TUESDAY AFTERNOON, 2:00

RAYMOND HUSSEY, M.D., *Presiding*

Symposium on Rehabilitation

Joint presentation by the Council on Physical Therapy and the Council on Industrial Health, American Medical Association.

"Rehabilitation: Recent Developments in Connecticut," James H. Biram, M.D., Hartford, Connecticut, medical director, Colt's Patent Fire Arms Manufacturing Company.

"Psychiatric Problems in Rehabilitation," Alfred P. Solomon, M.D., Chicago, associate professor of psychiatry, University of Illinois College of Medicine.

"Physical and Occupational Therapy in Rehabilitation," John S. Coulter, M.D., Chicago, chairman, Council on Physical Therapy.

"The Future of Rehabilitation," Terry Foster, Washington, D. C., research agent, Vocational Rehabilitation Division, U. S. Office of Education. Room 17.

WEDNESDAY MORNING, 10:00

JAMES S. MCLESTER, M.D., *Presiding*

Symposium on Nutrition in Industry

Joint presentation by the Council on Foods and Nutrition and the Council on Industrial Health, American Medical Association.

"Criteria for the Evaluation of Nutrition Experience in Industry," Franklin C. Bing, Ph.D., Chicago, secretary, Council on Foods and Nutrition.

"Progress in the National Program on Nutrition in Industry," Robert S. Goodhart, M.D., Washington, D. C., technical adviser, Nutrition in Industry, Nutrition Division, Office of Defense Health and Welfare Services.

"Current Nutritional Activity in Industry: A Review and Appraisal," George R. Cowgill, Ph.D., New Haven, associate professor of physiological chemistry, Yale University School of Medicine.

Round-Table Discussion. Red Lacquer Room.

WEDNESDAY NOON, 12:30

Luncheon—Room 17.

"Can We Eat Our Way to Health or Sickness?" Morris Fishbein, M.D., Chicago, editor, *Journal of the American Medical Association.*

CHICAGO CONFERENCE ON THE HEALTH OF INDUSTRIAL WORKERS

PALMER HOUSE, CHICAGO

WEDNESDAY, JANUARY 13, 1943

Under the auspices of Chicago Medical Society, Illinois Manufacturers' Association, Illinois State Department of Public Health (Division of Industrial Hygiene).

In cooperation with Illinois State Medical Society (Committee on Industrial Health), Chicago Board of Health, Chicago Society of Industrial Medicine and Surgery, Chicago Industrial Nurses' Club, American Industrial Hygiene Association (Chicago Chapter).

WEDNESDAY AFTERNOON, 2:30

Red Lacquer Room

FREDERICK W. SLOBE, M.D., *Presiding*

Chairman, Industrial Health Committee, Chicago Medical Society

"The Urgent Need for Better Local Industrial Health Organization," Carl M. Peterson, M.D., Chicago, secretary, Council on Industrial Health, American Medical Association.

"Why Do Employees Stay Away from Work and What Can We Do About It?" Clarence D. Selby, M.D., Detroit, medical consultant, General Motors Corporation.

"How the Small Plant Can Conduct a Health Program," Milton H. Kronenberg, M.D., Chicago, director, Division of Industrial Hygiene, Illinois Department of Public Health.

"Problems of Employing the Physically Handicapped," Fred H. Albee, M.D., New York.

Discussion: Joseph H. Chivers, M.D., Chicago, medical director, The Crane Company.

"The Employer's Viewpoint," George P. Wardley, Chicago, manager, Industrial Relations, Carnegie-Illinois Steel Company.

"The Industrial Commission's Attitude," Alfred J. Borah, Chicago, chairman, Industrial Commission.

"Medico-Legal Aspects," Frank R. Peregrine, attorney, Chicago.

WEDNESDAY EVENING, 6:30

Dinner Meeting—Red Lacquer Room.

JAMES P. SIMONDS, M.D., *Presiding*

Acting President, Chicago Medical Society

MR. STERLING MORTON, *Toastmaster*

President, Illinois Manufacturers' Association

Address: "We Have a Job to Do to Improve the Health of the Industrial Worker," the Honorable Dwight H. Green, governor of Illinois.

"The Care and Feeding of Executives," Walter Alvarez, M.D., the Mayo Clinic, Rochester, Minnesota.

Exhibits, Fifth Annual Congress on Industrial Health, Exhibition Hall

Fourth Floor, Palmer House

Council on Industrial Health, A. M. A.: Progress in Industrial Health Activity During 1942; An Industrial Health Program for a County Medical Society; Pneumoconiosis; Asbestosis; Silicosis; Tuberculo-Silicosis.

Council on Medical Education and Hospitals, A. M. A.: Training for Industrial Health Service.

Council on Physical Therapy, A. M. A.: Amputations; Conservation of Hearing.

Council on Foods and Nutrition, A. M. A.: Dietary Deficiency Diseases; Nutritionally Improved Flour.

Council on Pharmacy and Chemistry, A. M. A.: Infections in Industry.

Bureau of Health Education, A. M. A.: Health Education in the Doctor's Office.

Library and Bureau of Health Education, A. M. A.: Industrial Health Information.

Hygeia, the Health Magazine, A. M. A.: Health Information for the Workman.

Section on Dermatology and Syphilology, A. M. A., and U. S. Public Health Service: Industrial Dermatoses.

U. S. Public Health Service: Syphilis in Industry; Industrial Absenteeism.

U. S. Bureau of Mines: Respiratory Protective Equipment in Mining and Industrial Work.

Metropolitan Life Insurance Company: Health Progress and American Man Power; Tuberculosis Control in Industry.

Employers Mutual Liability Insurance Company: Industrial Diseases and Accidents.

Zurich Casualty Insurance Company: Health Education in Industry.

Office of Civilian Defense, Sixth Service Command: Civilian Defense and Industry; Sanitary Measures in Emergencies.

Association of Artificial Limb Manufacturers: Artificial Limbs in Industry.

V. Mueller & Company: Equipment for a Small Plant Dispensary.

Marquette University Medical School: Anatomic Considerations in Back Injuries.

Council on Industrial Health, A. M. A.: Stanley J. Seeger, M.D., chairman, Texarkana, Texas; Harvey Bartle, M.D., Philadelphia; Leverett D. Bristol, M.D., New York City; Warren F. Draper, M.D., Washington, D. C.; Philip Drinker, Boston; Leroy U. Gardner, M.D., Saranac Lake, New York; Raymond Hussey, M.D., Baltimore; Henry H. Kessler, lieutenant commander, Medical Corps, U. S. Navy, Newark, New Jersey; Anthony J. Lanza, lieutenant colonel, Medical Corps, U. S. Army, Washington, D. C.; Robert T. Legge, M.D., Berkeley, California; Clarence D. Selby, M.D., Detroit; William D. Stroud, M.D., Philadelphia; C. M. Peterson, M.D., secretary, Chicago.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

W. O. Tirrill, Jr., lieutenant, M. C., U. S. N. R., Nashville, to Navy Yards Hospital, Charleston, South Carolina.

Orren B. Landrum, captain, Dyersburg, to A. P. O. 79, 315 Medical Detachment, Camp Blanding, Florida.

Alvin B. Tripp, New Braunfels, Texas, to Glen Eden Road, Nashville, Tennessee.

John J. Eberhart, lieutenant commander, M. C., U. S. N. R., Nashville, to 1014 Heyburn Building, Louisville, Kentucky.

W. F. Roth, Jr., Franklin, to U. S. Naval Hospital, Farragut, Idaho.

NEWS NOTES AND COMMENTS

Twin ceremonies on Thursday, December 17—one in Rensselaer, New York, and the other at the Hotel New Yorker in New York City—marked presentation of the Army-Navy "E" to Winthrop Chemical Company.

Principal speakers at both ceremonies were Brigadier General Charles Clark Hillman, chief of professional service of the Surgeon General's office of the War Department; Rear Admiral Charles S. Stephenson, head of the division of preventive medicine, Bureau of Medicine and Surgery, Navy Department; and Dr. Morris Fishbein, editor of the *Journal of the American Medical Association.*

Winthrop is manufacturing many vital drugs for the armed forces, according to Dr. Theodore G. Klumpp, president. Among these is atabrine, a synthetic substitute for quinine in the treatment of malaria. Winthrop's research, initiated at the outbreak of war in 1939, made possible the production of this antimalarial entirely from materials of domestic origin, Doctor Klumpp said, and atabrine is today being manufactured here in the United States at a rate which is 16,000 per cent above prewar United States requirements.

The Commonwealth Fund is offering scholarships in refresher courses dealing with pediatrics at Tulane University and possibly refresher courses in pediatrics, medicine, or obstetrics at Harvard. The courses offered at Tulane are intensive ones of one week's duration. The courses at Harvard will be of approximately one month's duration. Financial arrangements will be the same or both; that is, reimbursement for the cost of tuition and necessary

travel expense to and from the school, as well as a stipend of approximately $10 a day for work at Tulane and $250 for the month at Harvard. The courses at Tulane begin on January 25, 1943.

If physicians are interested in making applications for such a scholarship, application should be made immediately and directly to Dr. Harry E. Handley, The Commonwealth Fund, 41 East Fifty-Seventh Street, New York, New York.

Below we print an opinion from the attorney general's office, stating the right of chiropodists to prescribe drugs.

We feel sure that the opinion is of interest to the medical profession in Tennessee:

Section 7182.1 of the 1932 Tennessee Code defines a chirodopist as "one who examines, diagnoses or treats medically, mechanically, or surgically the ailments of the human foot and massaging in connection therewith, except that the amputation of the toes or foot or the use of anesthetics other than local is not included in such definition." Although this section does not specifically authorize a particular person to perform a particular act, it does recognize the profession of chiropody and defines the same.

Section 7182.2 being the section setting out what shall be unprofessional conduct states as follows:

> ". . . Unprofessional and dishonest conduct shall be held to mean within the provisions of this act . . . or for using, selling, or giving away any substance or compound containing alcohol or drugs for other than legal and legimitate purposes."

This, by inference, permits duly qualified chiropodists to sell or give away substances or compounds containing alcohol or drugs *for legal and legitimate purposes.*

Under these two sections of the code we feel that chiropodists are within the law in prescribing or giving away drugs and medical preparations so long as their application and use affects only "the human foot."

Of course, the above described authority to prescribe drugs under the chiropodists sections of the code is necessarily limited in its authority to those drugs which are not otherwise expressly prohibited. Section 6618 makes it unlawful for a person to sell or barter any opium or coca leaves or any compound, manufacture, salt, derivative, or preparations thereof, except on prescription of physicians, dentists, or veterinary surgeons.

Section 6632.1 makes it unlawful for any person to sell or barter cannabis, or any compound, derivative or preparation thereof. Section 6632.6 makes it unlawful for any person, firm, or corporation to sell, barter, or give away any drug known as barbital.

All these code sections prohibit the prescribing of said drugs except by duly licensed physicians, dentists, and veterinaries, and section 5719 of the code defines the word physician as "physicians registered in the state under the provisions of the several statutes regulating the practice of their profession." Of course, any chiropodist or any other person engaged in the healing art, if he is also a "physician registered in the state under the provisions of the several statutes regulating the practice of their profession," has the right and authority to write prescriptions containing any, or all, of the above described drugs.

We are, therefore, of the opinion that a duly licensed and qualified chiropodist has the right and authority to write prescriptions containing:

1. Such alcohol and drugs as are not prohibited by specific sections of the code; and
2. Prescriptions which are applied to and affect only "the human foot," to be applied externally only.

MEDICAL SOCIETIES

Giles County:

The following officers have been elected for the year 1943:

L. A. Edmundson, Bethel, President.
D W. Cowgill, Pulaski, Vice-President.
W. K. Owen, Pulaski, Secretary.

Greene County:

The Greene County Medical Society had its regular meeting on December 1 and elected the following officers for the year 1943:

L. E. Coolidge, Greeneville, President.

W. T. Mathes, Greeneville, Vice-President.

J. E. Kite, Jr., Bulls Gap, Secretary.

A paper was presented by Dr. W. T. Mathes, entitled "Migraine."

(Signed) RAE B. GIBSON,
Secretary.

Haywood County:

Officers for 1943:

John C. Thornton, Brownsville, President.

F. P. Hess, Bells, Vice-President.

Roy M. Lanier, Brownsville, Secretary.

McMinn County:

Officers elected for 1943 are as follows:

W. E. Foree, Athens, President.

D. F. Seay, Englewood, Vice-President.

Roy W. Epperson, Athens, Secretary.

Monroe County:

H. C. Shearer, Madisonville, President.

B. W. Bagwell, Madisonville, Vice-President.

R. C. Kimbrough, Madisonville, Secretary-Treasurer.

Polk County:

The following were elected officers for 1943:

H. P. Hyde, Copperhill, President.

C. W. Strauss, Copperhill, Vice-President.

F. O. Geisler, Isabella, Secretary.

Robertson County:

A. R. Kempf, Springfield, President.

W. S. Rude, Ridgetop, Vice-President.

John S. Freeman, Springfield, Secretary-Treasurer.

Smith County:

Officers for 1943:

John J. Beasley, Pleasant Shade, President.

Rhea E. Garrett, Dixon Springs, Vice-President.

Thayer S. Wilson, Gordonsville, Secretary.

Sullivan-Johnson Counties:

At the December meeting of the Sullivan-Johnson Counties Medical Society the following officers were elected for 1943:

D. D. Vance, Bristol, President.

C. F. N. Schram, Kingsport, Vice-President for Sullivan County.

H. S. Smythe, Mountain City, Vice-President for Johnson County.

G. W. Leavell, Bristol, Secretary-Treasurer.

Washington, Carter, Unicoi Counties:

At the last meeting, December 3, the following officers were elected:

J. R. Moody, Erwin, President.

U. G. Jones, Johnson City, Vice-President.

W. G. Frost, Elizabethton, Vice-President.

Edmund A. Lodge, Johnson City, Secretary-Treasurer.

Dr. J. R. Bowman read a paper on "Hemorrhages of the Newborn." Drs. W. G. Frost and C. W. Friberg were the discussers.

Dr. E. A. Lodge has recently transferred from the Veterans Service at the Mountain Home to become associated with Dr. U. G. Jones and Dr. T. P. McKee at the Jones Hospital.

(Signed) C. W. FRIBERG,
Secretary.

White County:

Officers for 1943:

J. C. Blankenship, Sparta, President.

A. A. Bradley, Cookeville, R. F. D. No. 5, Vice-President.

B. L. Upchurch, Sparta, Executive Secretary.

Williamson County:

The Williamson County Medical Society at its last meeting elected officers for the year 1943 as follows:

W. B. Farris, Franklin, President.
B. T. Nolen, Franklin, Vice-President.
H. C. Stewart, Franklin, Secretary-Treasurer.

ABSTRACTS OF CURRENT LITERATURE

ANESTHESIA

By Hugh Barr, M.D.
Medical Arts Building, Nashville

The Use of Ether to Abolish Arrhythmia During Cyclopropane Anesthesia. A Case Report. Anesthesia and Analgesia, November-December, 1942.

Cardiac irregularities during cyclopropane anesthesia are frequent. The cause has not been determined conclusively, but their occurrence demands immediate therapy. Many drugs have been recommended to combat this condition, such as amytal, procaine, ergotamine, carbon dioxide, and intravenous quinidine.

A case of a stab wound of the chest was operated upon under cyclopropane for relief of hemorrhage, in which operation there occurred no arrhythmia. A second operation eleven days after for hemopneumothorax and hemopericardium was complicated by a series of arrhythmias which could not be controlled by procaine, but on each occasion were abolished by the administration of ether.

INTERNAL MEDICINE

By R. B. Wood, M.D.
By D. R. Thomas, M.D.
Medical Arts Building, Knoxville

Rheumatic Heart Disease. Chester S. Keefer, M.D. Internal Clinics, March, 1942.

According to Cohn, twenty per one thousand of the general population suffer with rheumatic fever, making at least one million persons in the United States. The incidence in school children vary from three to fourteen per one thousand children, being less in the warmer climates.

Initial attacks occur between the ages of five and fourteen, being unusual under two or over thirty years of age. The earlier it occurs, the more likely recurrences will take place, and a cardiac involvement is to be expected to occur more frequently in the younger age group. Both sexes are equally affected, with late winter and early spring being the favorable seasons for attacks. In Boston it is seen most often from February to May. Multiple cases are seen in the same family, and there seems to be an inherited factor which predisposes children to the development of the disease. Respiratory infections with hemolytic streptococci precede the development of the infection. This is made more favorable by overcrowding, undernutrition, exposure to cold or to infections. Recurrences are to be expected in eighty to eighty-five per cent of the cases and usually come within a five-year period. They occur under the same conditions as favor the initial attack and assume the same manifestations as the original. The carditis if present in the first becomes a striking picture in recurrences. Recurrences are of important value, as the cardiac picture becomes more grave with each succeeding attack. According to M. G. Wilson, eighty-five per cent of the hearts of all victims are affected by the first attack and make their appearance within a year after the initial attack. Wilson also states of six hundred seventy-three children studied, more than one-half had simple mitral insufficiency. Slightly less had multiple valvular lesions. The degree of cardiac involvement seems to depend on:

1. Age of onset and number of recurrences.
2. Presence of signs of active carditis.
3. Severity of the rheumatic manifestations and especially the severity of acute carditis.

I. Two to five per cent of rheumatic fever cases die within the first year, but of those with rheumatic carditis fifteen to twenty per cent die in this period.

II. Patients who have repeated attacks may:
   1. Die during attack of acute carditis.
   2. Pass into a latent phase and then develop: (a) bacterial endocarditis; (b) heart failure from vulvular disease with or without recurrent active infection; (c) heart failure from auricular fibrillation; (d) heart failure with embolism.

III. Patients who recover completely. This represents fifteen and twenty-five per cent of patients who recover with no signs of heart disease. Whether one recovers seems dependent on: (1) age of onset; (2) severity and duration of attack; (3) type of manifestation.

Patients who develop bacterial endocarditis represent about twenty to twenty-five per cent of patients who survive rheumatic fever and develop valvular disease. This will usually occur a few years after recovery and in those apparently in good health.

Patients who develop heart failure with a normal rhythm are usually under forty. Sixty-eight per cent of those with mitral stenosis and normal rhythm die of heart failure and usually have active infection. About forty to fifty per cent of those with heart failure develop auricular fibrillation. It is uncommon under ten years and more common over forty years of age, and is always a serious omen because it often is a sign of active infection.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Hemorrhage After Cataract Extraction Summary. Gerard DeVoe, M.D. Archives of Ophthalmology, December, 1942.

1. Of four hundred fifty-three consecutive cata-

ract operations, postoperative hemorrhage appeared after ninety-five, an incidence of about twenty per cent.

2. Age, time of year, systolic and diastolic blood pressure, the presence of diabetes or syphilis and elevated intraocular pressure were not found to be related to postoperative hemorrhage.

3. The type of operation used, presence or absence of retrobulbar injection, type of suturing and skill of the individual surgeon were not found to be significant.

4. The performance of an iridectomy at the time of extraction increased the chance of subsequent hemorrhage by about twenty per cent.

5. Determinations of the plasma ascorbic acid and tests for capillary fragility are not reliable in predetermining hemorrhage. Vitamin C subnutrition is not a common cause of hemorrhage after cataract extraction.

6. Deficiency in plasma prothrombin, associated with lack of vitamin K, is not an important cause of hemorrhage after cataract extraction.

7. Systemic measures, such as the use of snake venom, calcium, thromboplastic substances, protein diets, and various proprietary drugs, do not appear useful as preventive agents. Local application of certain substances may prove to be of some value.

PEDIATRICS

By John M. Lee, M.D.
Doctors Building, Nashville

Sulfanilamide in Scarlet Fever. Conrad Wesselhoeft, M.D., Boston. Proceedings of American Academy of Pediatrics. The Journal of Pediatrics, December, 1942.

The rash and the initial fever of scarlet fever are in no way affected by sulfanilamide because the infection in this disease is usually superficial in the fauces and the symptoms are the result of the toxins produced by the infection. The deeper the streptococci penetrate into the tissues the more pronounced is the beneficial action of chemotherapy. Therefore, if the initial phase of the disease is accompanied by sepsis, sulfanilamide is likely to be beneficial, otherwise not.

Patients rarely die of the eruptive phase of scarlet fever. They die of the complications resulting from deep invasion of the streptococci, and the mortality of meningitis and bacteremia in scarlet fever has been greatly reduced by chemotherapy.

Sulfanilamide given only during the pyrexia or first week of scarlet fever accomplishes nothing except in the presence of septic invasion. If given throughout the convalescence of the patient, it will reduce the incidence of complications. The most marked reduction will be in the incidence of adenitis, and next in the incidence of otitis media and the resultant mastoiditis. This will be accomplished only if the drug is given in adequate dosage and continued throughout convalescence. Such usage may result in fever, drug rash, or psychosis, but the author prefers to accept these if the drug will reduce the incidence of mastoiditis, meningitis, and bacteremia. Such use of the drug entails close observation, preferably in a hospital.

The incidence of acute glomerulonephritis has not been affected by chemotherapy in scarlet fever, this complication occurring in one or two per cent of all cases.

Some cases of simple cervical adenitis complicating scarlet fever are benefited by sulfanilamide and some are not. The drug has no effect on suppurative adenitis.

In five hundred thousand cases of scarlet fever otitis media occurred in twelve per cent of the patients. More recently the incidence of this complication has been eight per cent. Among factors influencing the incidence of this condition is age. At two years of age almost fifty per cent of cases will develop otitis, whereas in adults the incidence is five to seven per cent.

The author is not certain as to the influence of sulfanilamide in otitis media. In his own experience the incidence of mastoiditis was not reduced below that for prechemotherapy days; however, the incidence of the complication in cases receiving chemotherapy was lower than that of concurrent controls that did not receive sulfanilamide. He cites a number of patients discharged from the hospital with dry ears after treatment of suppurative otitis media with sulfanilamide, returning later with recurrent suppuration, and some of them developed mastoiditis. He feels that many of the cases with suppurative ears were delayed in coming to mastoidectomy as a result of prolonged chemotherapy, during which the white count and X-ray evidence of mastoid involvement were concealed.

ROENTGENOLOGY

By J. Marsh Frere, M.D.
Newell and Newell Sanitarium, Chattanooga

Roentgen Treatment of Inoperable Ulcerating Carcinoma of the Breast. William C. MacCarty, Jr., M.D., and Eugene T. Leddy, M.D. Radiology, Vol. 39, No. 6, p. 711, December, 1942.

From 1925 to 1940, inclusive, ninety-eight patients suffering from primary inoperable ulcerating carcinoma of the breast were treated in the Section on Therapeutic Radiology at the Mayo Clinic.

It is interesting to note that the chief and only sign complained of by eighty-seven patients was a lump in the breast. Only four patients noted both a lump and pain.

The plan of treatment and the technical factors used in the majority of cases were similar to those reported by Desjardins, McCullough, and one of us (Leddy). The method of "converging beams" has continued to prove its value and effectiveness. We now use, in the majority of instances, one hundred killovolts (constant potential), six milliamperes, forty centimeters target-skin distance, and six millimeters of aluminum filtration.

The anterior portion of the thorax on the in-

volved side is divided into four or six sectors, depending on the size of the lesion in the breast, and each sector is centered over the tumor. The central rays are directed toward the center of the sector. These fields are supplemented by axillary and supraclavicular fields on the affected side and, on some occasions, over the breast, axilla, and supraclavicular space on the unaffected side, particularly when the lesion is situated near the sternum. Other metastatic lesions are treated whenever occasion demands. A dose of five hundred to six hundred r, measured in air, is given to each sector at one sitting. Usually, treatment is given to one area (or perhaps two) daily, though come patients are able to tolerate only a half treatment a day; hence the full course may require from four- to eleven-treatment days, depending on the number of fields treated and the extent to which treatment is divided. This series is repeated in a month and again after another month.

In evaluating their work they admit that these results are far from ideal, yet they are noteworthy considering the type of lesion against which they were obtained. In twenty-three instances the ulcer completely healed and in an equal number of cases its size was reduced considerably. Twenty-four patients claimed that their general condition had definitely improved. As we have mentioned, only seven patients stated that they were worse after roentgen therapy.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

Clinical Perinephritis and Its Effect on Blood Pressure. Wm. F. Braasch and Wm. W. Wood, Jr. Journal of Urology, October, 1942.

The production of experimental arterial hypertension by cellophane perinephritis by Page has suggested the question whether clinical perinephritis may be an etiologic factor in hypertension of human beings.

For this study a group of seventy cases were selected from the clinical records during the period of January, 1930, to December, 1940, inclusive, in which a positive or presumptive diagnosis of primary perinephritis or perinephritic abscess was made. Cases with marked renal damage were excluded. Of the seventy cases, fifty-two were males and eighteen females. The average age was thirty-eight and three-tenths years. In sixty-seven of the cases the diagnosis was verified by surgical exploration; in the remaining three by urographic findings.

The blood pressures used for studies were those recorded during the initial examination of the patient. A systolic blood pressure of one hundred forty-five millimeters or above and a diastolic of ninety millimeters or above was considered hypertension.

Six cases of the entire group had hypertension; two of them, however, were known to have had hpertension before the perinephritis developed. A third case had other factors operating to influence the hypertension. Thus only three cases remained in which association between perinephritis and hypertension might be present, an incidence of four and three-tenths per cent. This is less than half of the incidence of hypertension existing in a random sample of patients less than fifty years of age.

The incidence of hypertension associated with perinephritis is so low that it should be relegated almost entirely to chance.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

Send It to

LILY WHITE LAUNDRY

6-3118

Order Reprints From

McQUIDDY PRINTING COMPANY

Nashville, Tennessee

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

President-Elect—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.

Vice-President for West Tennessee—Dr. F. Douglas, Dyer.

Vice-President for Middle Tennessee—Dr. S. J. Fentress, Goodlettsville.

Vice-President for East Tennessee—Dr. B. L. Jacobs, Chattanooga.

Secretary-Editor—Dr. H. H. Shoulders.

Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1943).

Dr. E. R. Zemp, Walnut Street, Knoxville.

Dr. B. L. Jacobs, Provident Building, Chattanooga (1943).

Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).

Dr. Hiram A. Laws, Jr., James Building, Chattanooga.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Geo. W. Brasher, Jackson.*
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.

Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1943).

Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennessee (1943).

*Deceased.

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	J. M. Cox, Lake City	O. E. Ballou, Clinton	J. S. Hall, Clinton
Bedford	W. H. Avery, Shelbyville	M. L. Connell, Wartrace	J. N. Burch, Shelbyville
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley	M. S. Trewhitt, Cleveland**	C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport	W. C. Ruble, Jr., Newport**	J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H. P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett			J. Paul Baird, Dyersburg**
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	I. R. Storie, Jamestown	C. A. Collins, Wilder	J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	J. P. Moon, Winchester
Gibson	J. O. Barker, Trenton**	C. W. Davis, Humboldt	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	J. W. Clower, Winter Garden, Fla.	W. A. Brewer, Monteagle	T. F. Taylor, Monteagle
Hamblen	P. L. Henderson, Morristown	W. E. Howell, Morristown	Y. A. Jackson, Morristown
Hamilton	G. Madison Roberts, Chattanooga	J. B. Swafford, East Chattanooga	J. J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	A. F. Paschall, Puryear	Elroy Scruggs, Paris	R. Graham Fish, Paris
Hickman	C. V. Stephenson, Centerville*	L. F. Prichard, Only	W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	A. R. Garrison, Byington	Joel C. Morris, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S Joplin, Petersburg
Loudon	J. R. Watkins, Loudon	Avery Leeper, Lenoir City**	W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison	Hunter Steadman, Henderson	Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury	Wm. N. Cook, Columbia	O. J. Porter, Columbia	D. B. Andrews. Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	R. M. Workman, Clarksville	M. L. Shelby, Clarksville	Jack Ross, Clarksville
Obion			D. S. Latimer, Union City
Overton	W M. Breeding, Livingston		A. B Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	Lex Dyer, Cookeville	J. Fred Terry, Cookeville	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood	W. W. Hill, Harriman	L. A. Killeffer, Harriman**
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	J. C. Kelton, Lascassas	Lois Kennedy, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson. Oneida
Sevier	C. P. Wilson, Sevierville	R. A. Broady, Sevierville	O. H. Yarberry, Sevierville
Shelby	E. M. Holder, Memphis W. L. Rucks, Memphis, President-Elect	E. R. Hall, Memphis	A. F. Cooper, Memphis, Secretary E. G. Kelly, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			B. H. Warren, Gallatin**
Tipton	S Hurt, Covington	H. S. Rule Covington I. J. Fleming, Atoka	N. L. Hyatt, Covington**
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	Paul W. Wilson, Dresden**
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. H. Tilley, Lebanon	J. R. Doak, Watertown	Phil Turner, Lebanon

* Deceased. ** In service.

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN INTERNAL MEDICINE

Dr. J. O. Manier, Nashville
Dr. L. W. Edwards, Nashville
Dr. Franklin B. Bogart, Chattanooga**
Dr. A. M. Patterson, Chattanooga
Dr. R. B. Wood, Knoxville
Dr. E. G. Wood, Knoxville
Dr. W. L. Williamson, Memphis
Dr. J. L. McGehee, Memphis

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville
Dr. A. H. Lancaster, Knoxville (1945)**
Dr. A. F. Cooper, Memphis (1944)
Dr. A. M. Patterson, Chattanooga (1943)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. J. L. Hamilton, Chattanooga (1944)**
Dr. R. R. Crowe, Nashville (1943)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Kee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1943)
Dr. John B. Steele, Chattanooga (1943)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1943)
Dr. T. R. Ray, Shelbyville (1943)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. J. B. Stanford, *ex officio*, Memphis

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1943)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1943)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1943)
Dr. J. M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. H. B. Gotten, Memphis (1944)**
Dr. D. W. Smith, Nashville (1943)

COMMITTEE ON MEMOIRS

Dr. J. P. Gilbert, Chairman, Nashville (1944)*
Dr. James O. Walker, Franklin (1945)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1943)
Dr. J. L. Hankins, Johnson City (1943)

*Deceased. **In service.

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. W. O. Tirrill, Jr., Nashville (1944)**
Dr. J. B. Fitts, Chattanooga (1944)
Dr. Thos. B. Drinnen, Knoxville (1943)**
Dr. C. W. Friberg, Johnson City (1943)
Dr. Paul Warner, Nashville (1943)**

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. Jack Chesney, Knoxville (1943)**

COMMITTEE ON CANCER

Dr. Ralph Monger, Chairman, Knoxville (1943)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. W. J. Sheridan, Chattanooga (1944)**
Dr. C. H. Heacock, Memphis (1944)
Dr. Howard King, Nashville (1943)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. R. C. Robertson, Chattanooga (1944)**
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1943)
Dr. Robert F. Patterson, Knoxville (1943)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. E. L. Rippy, Nashville (1943)**

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. Van Fletcher, Chattanooga (1945)**
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Troy P. Bagwell, Knoxville (1943)

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

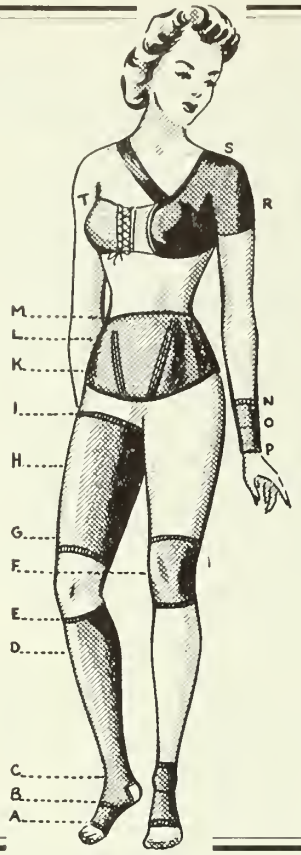
Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatric Society—
President—Dr. Frazier Binns, Nashville**
Vice-President—Dr. O. L. Von Canon, Chattanooga**
Secretary—Dr. Gilbert Eblen, Knoxville

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland**
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis
Vice-President—Dr. Franklin B. Bogart, Chattanooga**
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga



Tafel's
PERFECT FIT
Established 1889

A complete line of Elastic Stockings, Supporters, Trusses, Sacro-Iliac Supports, and all types of braces. Stock sizes. Also made to order.

Experienced fitters of many years' training. Lady attendant.

THEO. TAFEL CO.

153 Fourth Avenue, North, Nashville, Tennessee

LOUISVILLE NEUROPATHIC SANATORIUM

(INCORPORATED)

1412 South Sixth St., Louisville, Ky.



An ethical institution, with modern equipment, for the care and treatment of mental and nervous diseases and select cases of drug addiction. Situated in the residence portion of the city, yet quiet and retired. Rates reasonable.

W. E. RENDER, M.D., Medical Director
A. GUIGLIA, M.D., Resident Physician
W. E. GARDNER, M.D., Consultant

ACCEPTED
AMERICAN MEDICAL ASSN.
Council on Foods

Tru-li-Pure
PASTEURIZED

HOMOGENIZED Vitamin D Milk

PRODUCES A SOFT CURD

(400 U. S. P. Vitamin D Units Per Quart)

Under Sealtest System of Laboratory Control

Nashville Pure Milk Company

1401 CHURCH STREET

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

887

Volume XXXVI
Number 2

FEBRUARY, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

THE DIAGNOSIS AND TREATMENT OF CARCINOMA OF THE COLON, Harwell Wilson, M.D., F.A.C.S., Memphis ... 47

TEXT OF THE OPINION AFFIRMING GUILT OF TWO MEDICAL SOCIETIES — Decision Written by Justice Roberts ... 50

PROGRAM OF POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS—OUTLINE OF LECTURES, J. R. Bromwell Branch, A.B., M.D., Instructor ... 55

NOT ALL MEN THINK ALIKE, Lewis T. Buckman, M.D., President, The Medical Society of the State of Pennsylvania ... 57

AN INTERPRETATION OF DRAFT REJECTION FIGURES, W. W. Bauer, M.D., Chicago, Illinois ... 61

TENNESSEE DOCTORS AND THE MILITARY SERVICE ... 66

EDITORIAL ... 72

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE ... 78

NEWS NOTES AND COMMENTS ... 80

MEDICAL SOCIETIES ... 82

ABSTRACTS OF CURRENT LITERATURE ... 83

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION ... 87

STANDING COMMITTEES ... 88

INDEX TO ADVERTISERS ... XVIII

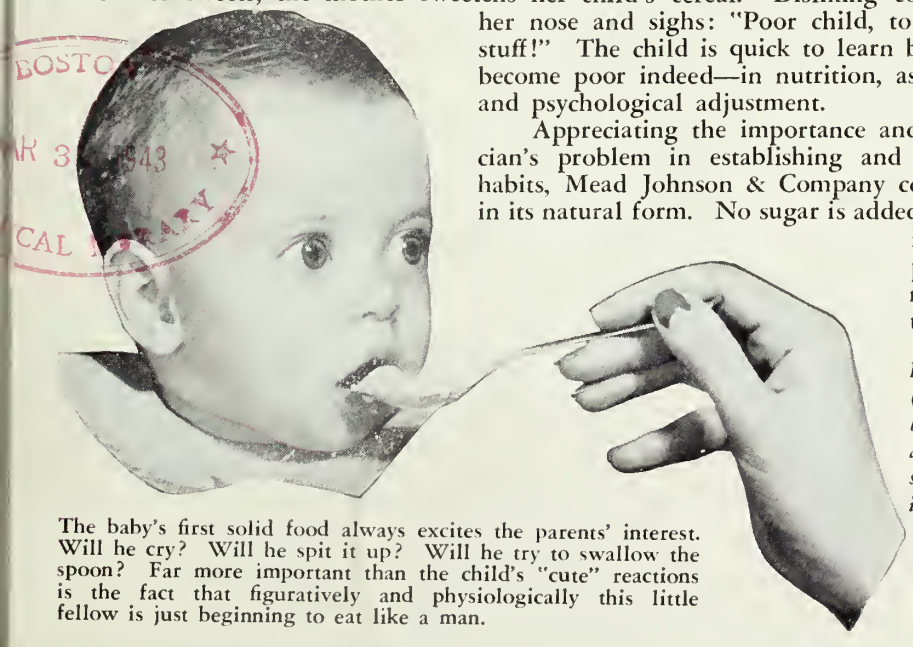
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

HIS FIRST CEREAL FEEDING

IT is a fortunate provision of Nature that at the time the infant is ready to receive the nutritional benefits of cereal, his taste is unspoiled by sweets, pastry, condiments, tobacco, alcohol and other things to which adult palates and constitutions have become conditioned.

Many a parent, with limited knowledge of nutrition, attempts to do the baby's tasting for him. Partial to sweets, the mother sweetens her child's cereal. Disliking cod liver oil, she wrinkles her nose and sighs: "Poor child, to have to take such awful stuff!" The child is quick to learn by example, and soon may become poor indeed—in nutrition, as well as in mental habits and psychological adjustment.

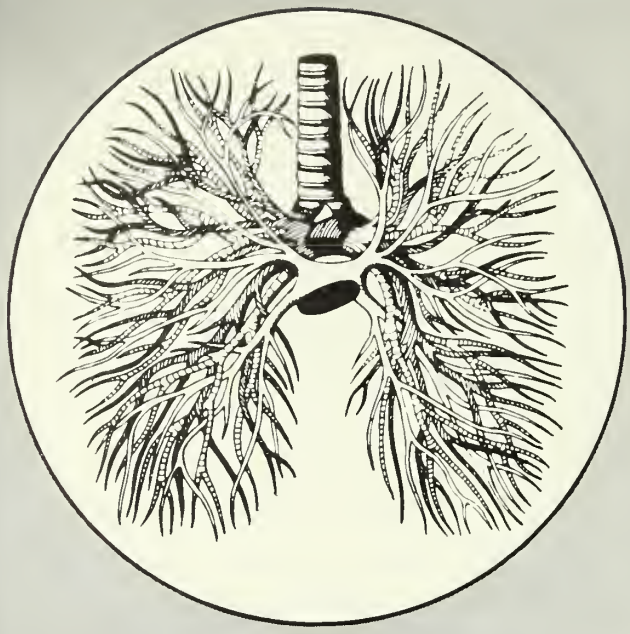
Appreciating the importance and difficulties of the physician's problem in establishing and maintaining good eating habits, Mead Johnson & Company continue to supply Pablum in its natural form. No sugar is added. There is no corresponding dilution of the present protein, mineral and vitamin content of Pablum. Is this not worth while?

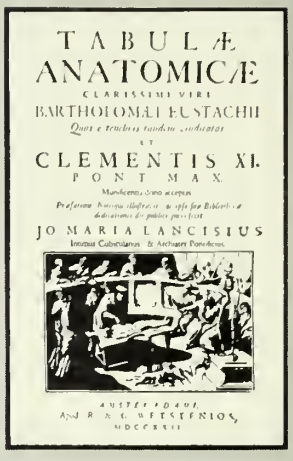


The baby's first solid food always excites the parents' interest. Will he cry? Will he spit it up? Will he try to swallow the spoon? Far more important than the child's "cute" reactions is the fact that figuratively and physiologically this little fellow is just beginning to eat like a man.

Pablum consists of wheatmeal (farina), oatmeal, wheat embryo, cornmeal, beef bone, alfalfa leaf, brewers' yeast, sodium chloride, and reduced iron.

MEAD JOHNSON & CO.
EVANSVILLE, INDIANA, U. S. A.





● From the rare volume, "Tabulae Anatomicae" by Bartholomaei Eustachii, comes this interesting illustration of the bronchi, arteries and veins of the lungs. Published in 1722.

SOUNDING THE

ALL CLEAR

WITH ADRENALIN IN ASTHMA

Adrenalin* sounds a clear, unwavering note in its marked ability to dilate and clear the branchioles in branchial asthma . . . Adrenalin in aqueous solutions for speedy relief in asthmatic emergencies . . . Adrenalin in Oil for sustained all-night relaxation and comfort. No medication is more effective, none more widely relied upon.

Adrenalin, an epinephrine manufactured exclusively by Parke, Davis & Company, is of value in preventing and treating various allergic states, in checking superficial hemorrhage, for stimulating vital centers in certain crises.

Adrenalin is a powerful vasoconstrictor, circulatory stimulant and hemostatic. It represents a standardized, natural hormone, 100 per cent active. Are your bag and office supplied?

*Trade-mark Reg. U.S. Pat. Off.

Adrenalin Chloride Solution **1:1000**
Adrenalin Chloride Solution **1:100**
Adrenalin in Oil Ampoules **1:500**

Products of modern research offered to the medical profession by Parke, Davis & Company, Detroit, Michigan.



The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M. HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI FEBRUARY, 1943 No. 2

THE DIAGNOSIS AND TREATMENT OF CARCINOMA OF THE COLON*

HARWELL WILSON, M.D., F.A.C.S., Memphis†

Carcinoma of the colon, according to Cole and Elman, accounts for one-tenth of all deaths due to malignancy. Because of its relative frequency and also because metastases usually occur relatively late, practitioners should give special attention to early recognition of this lesion.

In a consideration of both diagnosis and treatment of carcinoma of the colon, it is wise to consider the subject under two divisions; namely, the right side of the colon and the left side of the colon. This is advisable because the right and left sides of the colon differ both in function and in anatomy. The function of the right colon is to absorb water, thus conserving fluid for the organism. This absorption of water might be considered the last step in the digestive processes occurring in the gastrointestinal tract. The left colon is concerned primarily with the storage of residue, the consistency of which is usually solid after excess water is taken up by the right colon. Anatomically, the left colon is smaller in diameter than the right. It is apparent that the smaller size and solid content present in the left colon make obstruction much more likely to occur on the left side than on the right.

*Read before the Middle Tennessee Medical Association, May 21, 1942.

†University of Tennessee, Department of Surgery.

Carcinoma of the Right Colon

Diagnosis.—Mild digestive disturbances of a rather vague nature may bring the patient to the doctor. There may be some abdominal discomfort, such as cramps in the abdomen, but usually these symptoms are not localized. Frequently there occurs some change in the bowel habits of the individual, and these may take the form of diarrhea or of both diarrhea and constipation occurring at intervals. Tarry stools are less frequently found in carcinoma of the right colon than in some other lesions, but occult blood is present in most instances. Anemia and weakness result from the loss of occult blood and the debilitating effect generally produced by a malignancy. When a mass is palpable on the right side, the diagnosis often becomes easy. However, if possible, it is desirable to make the diagnosis before such a mass can be felt. A barium enema is of great help in demonstrating such a malignancy once its possibility is suggested. Again, it must be remembered that complete obstruction due to malignancy occurs very rarely in the right colon because of the large size of this portion of the gut and because its contents are liquid.

Treatment.—Only a few general principles will be outlined since the treatment of all colon malignancies is a serious problem and a great deal of individualization of

treatment is necessary in each case. The general condition of the patient should receive special attention before proceeding with the surgical extirpation of the lesion. It is very necessary to see that any deficiencies in salt and water metabolism are restored.

Anemia and abnormalities of plasma proteins are best remedied by giving transfusions of blood and plasma. It is wise to see that cervitamic acid levels are maintained, since it has been well demonstrated that tissues heal poorly in individuals with low vitamin C levels.

Surgical Procedures.—Provided the patient is in good condition and no liver metastases are found at exploration, it is often wise to resect the right colon at one stage performing an anastomosis between terminal ilium and transverse colon at the same time. If the general condition of the patient seems too questionable, it may be wise to simply perform an anastomosis between terminal ilium and transverse colon at the first operation with the expectation of resecting the tumor a few weeks later when the patient is in better condition. Frequently in such cases adhesions have formed following the first stage and the second operation may require almost as much time as the whole procedure would. If intestinal obstruction has resulted from a neoplasm, it is best to treat the obstruction by operative decompression and later to deal with the neoplasm.

Carcinoma of the Left Colon

Diagnosis.—Carcinoma of the left colon more frequently makes itself known by producing symptoms of acute, subacute, or chronic obstruction. Progressive constipation often occurs though there may be periods of intermittent diarrhea. Red blood may occur in the stools. In many cases, however, chemical tests are necessary to demonstrate its presence. The symptoms of weight loss, cachexia, and dehydration occur late and are not to be waited for in making a diagnosis.

In all cases of suspected malignancy of the colon a carefully executed plan of diagnostic procedures is most valuable. The first step properly consists of a careful history and physical examination. It is obvious that a careful rectal examination is a part of any good physical examination. Tests for occult blood should be made on the stool after the patient has followed a meat-free diet for three days. The proctoscope should be used in an attempt to visualize the lesion. An X-ray examination of the colon with contrast media is definitely indicated. Frequently, evidence gained from the fluoroscopic examination is more helpful than that shown on the films. Both should be carefully studied.

Treatment. — As mentioned above, the general physiology of the patient must be studied to insure adequate levels of red blood cells, plasma proteins, chlorides, water, and protective vitamins. Also it should again be emphasized that if the patient has obstruction, this must be relieved by proximal decompression before seeking to extirpate the tumor.

Surgical Procedure.—In lesions of the transverse, descending, or sigmoid colon, where metastases are absent and where the bowel is easily mobilized, a good result may be anticipated at much less risk from peritonitis if resection is done by the exteriorization technique. This method, usually called the Mikulicz procedure, involves the complete mobilization of the tumor and adjacent bowel so that the tumor may be lifted outside the abdomen. The afferent and efferent loops of colon are sutured together within the abdomen. After the free peritoneal cavity has been sealed off by adhesions, the exteriorized tumor is excised with a cautery. Subsequently, the spur of the double-barrel colostomy is crushed with a clamp, and if spontaneous healing of the colostomy does not occur, a simple surgical closure under local anesthesia is usually easily accomplished. In instances where the bowel cannot be mobilized easily, an end-to-end anastomosis is advisable, since the former procedure would be more apt to result in a local recurrence in the wound. If one anticipates using resection and end-to-end suture, it is advisable in most cases to render the bowel clean by first diverting the fecal stream with a colostomy proximal to the proposed resection. The Devine type

of colostomy is admirable under such circumstances, since this method insures complete diversion of the fecal stream and may be closed easily by using the crushing clamps.

In dealing with carcinoma of the rectum, in most instances it seems best where the general condition of the patient will permit to perform the combined abdominoperineal resection of the rectum in one stage. If the patient's condition does not permit it, a two-stage procedure may be advisable.

Summary and Conclusions

1. The symptomatology of carcinoma involving the right and left side of the colon differs because of anatomical and physiological differences in the two sides of this organ.

2. Mild digestive disturbances, changes in bowel habits, weakness, and anemia suggest investigation of the right colon. Obstruction occurs rarely in lesions on the right side. Chemical analysis is usually necessary to demonstrate blood from tumors of the right colon.

3. Symptoms of acute, subacute, or chronic obstruction often give the first evidence of a tumor of the left colon. Progressive constipation occasionally replaced by an intermittent diarrhea is a common finding. Blood in the stool is more apt to be present on gross examination of the left side than on the right side.

4. Diagnostic procedures in both cases should include history, physical with a careful digital examination of the rectum, stool analysis, proctoscopic examination, and barium studies of the colon.

5. Some general principles are outlined regarding the surgical treatment of these lesions.

BIBLIOGRAPHY

Cole, W. H., and Elman, R.: Textbook of General Surgery (second edition), 661. D. Appleton-Century Company, New York.

Devine, Hugh: "The Surgery of the Alimentary Tract." p. 948. The Williams and Wilkins Company, Baltimore, Maryland.

TEXT OF THE OPINION AFFIRMING GUILT OF TWO MEDICAL SOCIETIES

Decision Written by Justice Roberts
(From the Chicago Sun)

Washington, January 18.—The text of Justice Owen J. Roberts' opinion in the Supreme Court's settlement of the antitrust act charges by the government against the American Medical Association and the Medical Society of the District of Columbia, both corporations, follows:

Petitioners have been indicted and convicted by conspiring to violate section three of the Sherman Act, by restraining trade or commerce in the District of Columbia. They are respectively corporations of Illinois and of the District of Columbia. Joined with them as defendants were two unincorporated associations and twenty-one individuals, some of whom are officers or employees of one or other of the petitioners, the remainder being physicians practicing in the District of Columbia and members of the petitioners serving, as to some of them, on various committees of the petitioners having to do with professional ethics and with the practice of medicine by petitioners' members.

Charges Explained

For the moment it is enough to say that the indictment charged a conspiracy to hinder and obstruct the operations of Group Health Association, Inc., a nonprofit corporation organized by government employees to provide medical care and hospitalization on a risk-sharing prepayment basis. Group Health employed physicians on a full-time salary basis and sought hospital facilities for the treatment of members and their families. This plan was contrary to the code of ethics of the petitioners. The indictment charges that, to prevent Group Health from carrying out its objects, the defendants conspired to coerce practicing physicians, members of the petitioners, from accepting employment under Group Health, to restrain practicing physicians, members of the petitioners, from consulting with Group Health's doctors who might desire to consult with them, and to restrain hospitals in and about the city of Washington from affording facilities for the care of patients of Group Health's physicians.

The District Court sustained a demurrer to the indictment on the grounds, among others, that neither the practice of medicine nor the business of Group Health is trade as the term is used in the Sherman Act. On appeal the Court of Appeals reversed, holding that the restraint of trade prohibited by the statute may extend both to medical practice and to the operations of Group Health.

Cites Record of Case

The case then went to trial in the District Court. Certain defendants were acquitted by direction of the judge. As to the others, the case was submitted to the jury which found the petitioners guilty and all the other defendants not guilty. From judgments of conviction the petitioners appealed to the Court of Appeals, which reiterated its ruling as to the applicability of section three of the Sherman Act, considered alleged trial errors, and affirmed the judgments.

We granted certiorari limited to three questions which we thought important: 1. Whether the practice of medicine and the rendering of medical services as described in the indictment are "trade" under section three of the Sherman Act. 2. Whether the indictment charged or the evidence proved "restraints of trade" under section three of the Sherman Act. 3. Whether a dispute concerning terms and conditions of employment under the Clayton and Norris-La Guardia acts was involved, and, if so, whether petitioners were interested therein and therefore immune from prosecution under the Sherman Act.

First. Much argument has been addressed to the question whether a physician's practice of his profession constitutes trade under section three of the Sherman Act. In the light of what we shall say with respect to the charge laid in the indictment, we need not consider or decide this question.

STON MEDICAL
OCT 2 - 1944

Group Health a Business

Group Health is a membership corporation engaged in business or trade. Its corporate activity is the consummation of the cooperative effort of its members to obtain for themselves and their families medical service and hospitalization on a risk-sharing prepayment basis. The corporation collects its funds from members. With these funds physicians are employed and hospitalization procured on behalf of members and their dependents. The fact that it is cooperative, and procures service and facilities on behalf of its members only, does not remove its activities from the sphere of business.

If, as we hold, the indictment charges a single conspiracy to restrain and obstruct this business it charges a conspiracy in restraint of trade or commerce within the statute. As the Court of Appeals properly remarked, the calling or occupation of the individual physicians charged as defendants is immaterial if the purpose and effect of their conspiracy was such obstruction and restraint of the business of Group Health. The court said: "And, of course, the fact that defendants are physicians and medical organizations is of no significance, for section three prohibits 'any person' from imposing the proscribed restraints. . . ." It is urged that this was said before this court decided Apex Hosiery Co. vs. Leader, 310 U. S. 469. But nothing in that decision contradicts the proposition stated. Whether the conspiracy was aimed at restraining or destroying competition, or had as its purpose a restraint of the free availability of medical or hospital services in the market, the Apex case places it within the scope of the statute.

Refers to Indictment

Second. This brings us to consider whether the indictment charged, or the evidence proved, such a conspiracy in restraint of trade. The allegations of the indictment are lengthy and detailed. After naming and describing the defendants and the Washington hospitals, it devotes many paragraphs to a recital of the plan adopted by Group Health and alleges that, principally for economic reasons, and because of fear of business competition, the defendants have opposed such projects.

The indictment then recites the size and importance of the petitioners, enumerates means by which they can prevent their members from serving Group Health plans, or consulting with physicians who work for Group Health and can prevent hospitals from affording facilities to Group Health's doctors.

In charging the conspiracy, the indictment described the organization and operation of Group Health and states that, from January, 1937, to the date of the indictment, the defendants, the Washington hospitals, and others cognizant of the premised facts, have combined and conspired together for the purpose of restraining trade in the District of Columbia.

In five paragraphs the pleading states the purposes of the conspiracy. The first is the purpose of restraining Group Health from doing business; the second, that of restraining members of Group Health from obtaining adequate medical care according to Group Health's plan; the third, that of restraining doctors serving Group Health in the pursuit of their calling; the fourth, that of restraining doctors not on Group Health's staff from practicing in the District of Columbia in pursuance of their calling; and the fifth, that of restraining the Washington hospitals in the business of operating their hospitals.

Refers to Hospital Influence

After reciting certain of the proceedings and plans adopted to forward the conspiracy, the indictment alleges that the conspiracy and the intended restraints which have resulted from it, have been effectuated "in the following manner and by the following means" and alleged that the defendants have combined and conspired with the plan and purpose to hinder and obstruct Group Health Association, Inc., in procuring and retaining on its medical staff qualified doctors and to hinder and obstruct the doctors serving on that staff from obtaining consultations with other doctors and specialists practicing in the District of Columbia. It states that, pursuant to this plan and purpose, the defendants have resorted to certain means to accomplish the end, and recounts them.

In another paragraph, the defendants are charged to have conspired with "the plan and purpose to hinder and obstruct Group Health Association, Inc., in obtaining access to hospital facilities for its members and to hinder and obstruct the doctors on the medical staff of Group Health from treating and operating on their patients in Washington hospitals." It is alleged that, pursuant to this plan and purpose, defendants have done certain acts to deter hospitals with which they were connected and over which they exercised influence, from affording hospital facilities to Group Health's doctors.

The petitioners' contention is, in effect, that the indictment charges five separate conspiracies defined by their separate and recited purposes, namely, conspiracy to obstruct the business of Group Health, to obstruct its members from obtaining the benefit of its activities, to obstruct its doctors from serving it, to obstruct other doctors in the practice of their calling, and to restrain the business of Washington hospitals. The petitioners say that they were entitled to have the trial court rule upon the sufficiency in law of each of these charges and, as this was not done, the general verdict of guilty cannot stand.

Cites Appeals Court Action

They urge that even though some of the named purposes relate to the business of Group Health, and that business be held trade within the meaning of the statute, yet, as the practice of medicine by doctors not employed by Group Health is not trade, and the operations of Washington hospitals are not trade, the last two purposes specified cannot constitute violations of section three and the jury should have been so instructed. In this view they insist that the jury may have convicted them of restraining physicians unconnected with Group Health, or of restraining hospitals, and, if so, the verdict and judgment cannot stand.

If in fact the indictment charges a single conspiracy to obstruct and restrain the business of Group Health, and if the recited purposes are really only subsidiary to that main purpose or aim, or merely different steps toward the accomplishment of that single end, and if the cause was submitted to the jury on this theory, these contentions fail.

When the case first went to the Court of Appeals that tribunal construed the indictment as charging but a single conspiracy. It said:

"The charge stated in condensed form is that the medical societies combined and conspired to prevent the successful operation of Group Health's plan, and the steps by which this was to be effectuated were as follows: (1) to impose restraints on physicians affiliated with Group Health by threat of expulsion or actual expulsion from the societies; (2) to deny them the essential professional contacts with other physicians, and, (3) to use the coercive power of the societies to deprive them of hospital facilities for their patients."

Agrees with Lower Court

In the trial the District Court conformed its rulings to this decision and submitted the case to the jury on the theory that the indictment charged but one conspiracy.

We think the courts below correctly construed the indictment. It is true that in describing the conspiracy five purposes are stated which the conspiracy was intended to further, but in a later paragraph, still in the charging part of the instrument, it is alleged that the purpose was to hinder and obstruct Group Health in various ways and by various coercive measures which are identical with the "purposes" before stated. The trial judge, after calling the jury's attention to the juxtaposition of these two formulations of the charge, added:

"These purposes, it is alleged, were to be attained by certain coercive measures against the hospitals and doctors designed to interfere with employment of doctors by Group Health and use of the hospitals by members of its medical staff and their patients."

In immediate context the judge added:

"To sustain that charge the government must prove beyond a reasonable doubt that a conspiracy did, in fact, exist to restrain trade in the district in at least one of the several ways alleged, and according to the particular purpose and plan set forth."

At another point the trial judge sum-

marized the government's claim that the evidence in the case showed opposition by the petitioners to Group Health and its plan; that they feared competition between the plan and the organized physicians and that, to obstruct and destroy such competition, the petitioners conspired with certain officers and members and hospitals to prevent successful operation of Group Health's plan by imposing restraints upon physicians affiliated with Group Health by denying such physicians professional contact and consultation with other physicians, and by coercing the hospitals to deny facilities for the treatment of their patients.

Quotes Lower Court

Again the judge charged:

"Was there a conspiracy to restrain trade in one or more of the ways alleged?" And again: "If it be true . . . that the District society, acting only to protect its organization, regulate fair dealing among its members and maintain and advance the standards of medical practice, adopted reasonable rules and measures to those ends, not calculated to restrain Group Health, there would be no guilt, though the indirect effect may have been to cause some restraint against Group Health."

We need add but a word as to the sufficiency of the proof to sustain the charge. The petitioners in effect challenge the sufficiency, in law, of the indictment. They hardly suggest that if the pleading charges an offense there was no substantial evidence of the commission of the offense. But, however the argument is viewed, we agree with the courts below that the case was one for submission to a jury. No purpose would be served by detailed discussion of the proofs.

Third. We hold that the dispute between petitioners and their members, and Group Health and its members, was not one concerning terms and conditions of employment within the Clayton and the Norris-La Guardia Acts.

Section twenty of the Clayton Act, as expanded by section thirteen of the Norris-La Guardia Act, is the only legislation which can have any bearing on the case. Section twenty applies to cases between "an employer and employees, or between employers and employees, or between employees, or between persons employed and persons seeking employment, involving, or growing out of, a dispute concerning terms or conditions of employment . . . ; and provides that none of the acts specified in the section shall be considered or held to be violations of any law of the United States."

Defines Labor Dispute

Section thirteen of the Norris-La Guardia Act defines a labor dispute as including "any controversy concerning terms or conditions of employment, or concerning the association or representation of persons in negotiating, fixing, maintaining, changing, or seeking to arrange terms or conditions of employment, regardless of whether or not the disputants stand in the proximate relation of employer and employee."

It also provides that "a case shall be held to involve or to grow out of a labor dispute when the case involves persons who are engaged in the same industry, trade, craft, or occupation; or have direct or indirect interests therein; or who are employees of the same employer; or who are members of the same or an affiliated organization of employers or employees; whether such dispute is (1) between one or more employers or associations of employers and one or more employees or associations of employees; (2) between one or more employers or associations of employers and one or more employers or associations of employers; or (3) between one or more employees or associations of employees and one or more employees or associations of employees; or when the case involves any conflicting or competing interests in a 'labor dispute' (as defined in this section) of 'persons participating or interested' therein (as defined in this section)."

Citing these provisions the petitioners insist that their dispute with Group Health was as to terms and conditions of employment of the doctors employed by Group Health since the District Medical Society objected to its members, or other doctors, taking employment under Group Health on the terms offered by that corporation.

They assert that section twenty of the Clayton Act, as expanded by section thirteen

of the Norris-La Guardia Act, includes all persons and associations involved in a dispute over terms and conditions of employment who are engaged in the same industry, trade, craft, or occupation, or have direct or indirect interests within. And they rely upon our decisions in New Negro Alliance vs. Sanitary Grocery Co., 303 U. S. 552, and Drivers Union vs. Lake Valley Co., 311 U. S. 91 as bringing within the coverage of the acts a third party, even though that party be a corporation not in trade, and employers and employers' associations even though they be only indirectly interested in the controversy. They insist that as the petitioners and Group Health, its members and doctors, other doctors and the hospitals, were either directly or indirectly interested in a controversy which concerned the terms of employment of doctors by Group Health, the case falls within the exemption of the statutes and they cannot be held criminally liable for a violation of the Sherman Act.

Cites Petitioners' Purpose

It seems plain enough that the Clayton and Norris-La Guardia Acts were not intended to immunize such a dispute as is presented in this case. Nevertheless, it is not our province to define the purpose of Congress apart from what it has said in its enactments, and, if the petitioners' activities fall within the classes defined by the acts, we are bound to accord petitioners, especially in a criminal case, the benefit of the legislative provisions.

We think, however, that, upon analysis, it appears that petitioners' activities are not within the exemptions granted by the statutes. Although the government asserts the contrary, we shall assume that the doctors having contracts with Group Health were employees of that corporation. The petitioners did not represent present or prospective employees. Their purpose was to prevent anyone from taking employment under Group Health. They were interested in the terms and conditions of the employment only in the sense that they desired wholly to prevent Group Health from functioning by having any employees. Their objection was to its methods of doing business. Obviously there was no dispute between Group Health and the doctors it employed or might employ in which petitioners were either directly or indirectly interested.

In truth, the petitioners represented physicians who desired that they and all others should practice independently on a fee-for-service basis where whatever arrangement for payment each had was a matter that lay between him and his patient in each individual case of service or treatment. The petitioners were not an association of employees in any proper sense of the term. They were an association of individual practitioners each exercising his calling as an independent unit. These independent physicians, and the two petitioning associations which represent them, were interested solely in preventing the operation of a business conducted in corporate form by Group Health.

In this aspect the case is very like Columbia River Packers Association, Inc., vs. Hinton, 315 U. S. 143. What was there decided requires a holding that the petitioners' activities were not exempted by the Clayton and the Norris-La Guardia Acts from the operation of the Sherman Act.

The judgments are affirmed.

Mr. Justice Murphy and Mr. Justice Jackson took no part in the consideration of the decision of this case.

PROGRAM OF POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS—OUTLINE OF LECTURES

J. R. BROMWELL BRANCH, A.B., M.D., Instructor

Lecture No.

1. THE PRINCIPLES OF WOUND HEALING: The process of wound repair in the normal individual, with the discussion of factors which influence or interfere with the healing of wounds.
   a. General Factors:
   Patient's general nutritional and health state; presence of some systemic disease, such as tuberculosis, diabetes, cardiovascular, etc., hypoproteinemia, vitamin deficiencies, etc.
   b. Local Factors:
   The presence of foreign bodies, effect of devitalized tissues, blood clots, bacteria, tension within the tissues, etc.

2. THE MANAGEMENT OF WOUNDS—WITH SPECIAL REFERENCE TO WAR WOUNDS:
   a. This Includes:
      (1) The proper handling of tissue.
      (2) The proper selection and use of suture material.
      (3) The making and closing of incisions.
      (4) The use of local anesthesia and choice of anesthetic agents.
      (5) The evaluation of debridement.
      (6) The removal of foreign bodies.
      (7) Brief discussion of the meaning of the terms "contaminated" and "infected" as applied to the treatment of accidental wounds.
      (8) The importance of mechanical cleansing of contaminated wounds as opposed to the use of antiseptics.
   b. The Use of Sulfonamides.

3. (A) THE DIAGNOSIS AND MANAGEMENT OF FRACTURES, INCLUDING HEAD INJURIES:
   a. The importance of the recognition of the extent of soft tissue damage.
   b. The importance of the principle of traction in the handling of fractures of the long bones.
   SIMPLE FRACTURES: Brief discussion of means of recognizing and handling fractures of the femur, tibia and fibula, pelvis, spine, humerus, radius and ulna, bones of the hand and bones of the face, etc.
   COMPOUND FRACTURES: A correlation of knowledge of the proper care of wounds of the soft parts and of accompanying fracture of bones.

(B) INFECTIONS OF THE HAND, ILLUSTRATED WITH MOVING PICTURES:

4. THE TREATMENT OF BURNS:
   A discussion of the local and general effects of extensive burns and of the measures which should be employed in treating them.

5. THE MANAGEMENT OF SHOCK:
   An explanation of the meaning of the term and discussion of various types of shock. The general care of the seriously injured and surgically ill patient. Transfusions, plasma, administration of fluids, etc.

6. PREOPERATIVE AND POSTOPERATIVE CARE OF PATIENTS:
   The importance of estimating and evaluating the patient's general, physical, and psychological resources. The general principles involved and detailed management.

7. SURGICAL DISEASES OF THE ABDOMEN:
   A discussion of the methods of diagnosis of the peptic ulcer, biliary diseases, splenomegaly and diseases of the colon, etc.

8. Acute Abdominal Emergencies:

   Appendicitis, perforations, intestinal obstructions, etc.

9. Diseases of the Breast and Non-tuberculous Diseases of the Chest:

   The symptoms and signs and means of early diagnosis of these lesions and mention of the progress being made in the cure of such lesions by surgical means.

   a. Breast:

      Infections, endocrine disturbances, and neoplasms.

   b. Chest:

      Empyema, lung abscess, etc.

10. Cancer—with Particular Reference to Its Prevention and Early Recognition.

NOT ALL MEN THINK ALIKE*

LEWIS T. BUCKMAN, M.D., President, The Medical Society of the State of Pennsylvania

One of the most satisfying and stimulating experiences in life is the realization that comes to mature men and women that not all people think alike.

Like most fathers and sons, I suppose my father and I clashed as often as others in settling rules of my boyhood. I have forgotten most or all such occasions, but one has stayed with me, and, in the light of dawning intelligence, it has come to me that perhaps the fact of its fixing itself on my mind proves that somewhere about that time I began to realize that all do not think alike. For some reason, at the time, I was to have a new pair of rubber boots. I was given permission to buy the type that came to the knee. That was not what I wanted; I wanted the wader type with extension above the knee that could be strapped to the thigh. Father held out for the knee-length; I for the thigh-length.

"You get what I say, or none at all," he pronounced.

"Very well," I answered, "then I get none at all."

And I did not; and I realize now that from that point began my education, which has permitted me tonight to enunciate the startling principle that not all men think alike.

This country would never be what it is today if all men should think alike. The development of the most powerful industrial nation in the world today, based on democratic principles of government, themselves recognizing the right and the need of each man to think for himself, was made possible—and from a wilderness was created an industrial empire—because free men do not always think alike.

The explorers, the pioneers, the Yankee peddlers, the backwoods traders, the frontier doctors, pushing the boundaries of civilization ever westward from the Atlantic, were individualists. They found their beginnings in the escapists from European dogma, from royal and ecclesiastical and baronial persecution. They just did not think like the rulers of church and kingdom from whom they escaped.

As the wilderness was tamed, American ingenuity and inventiveness built an industrial empire the like of which the world had never seen. They established and developed a scale of comfortable living that the Old World had not known. These things were possible because free men do not think alike, but being individualists and competitors, they advance.

There have been times, however, when the security of our nation has been threatened because men do not think alike. A great civil war split us asunder when the way of life and the minds of men in two sections were opposed. But out of this difference came a stronger nation; stronger, because the victor, while establishing central government for all, accepted likewise a modified principle of states' rights from the vanquished. We will become still stronger when this principle of states' rights is modified; when, as an example in our own sphere, medical licensure is uniform and physicians are not restricted by inequalities in the laws of the several commonwealths of the nation.

Let us be sure, however, that the inequalities in requirements are eradicated by raising the lower standards, never by debasing the higher. Do not misconstrue this as a plea for the unlicensed foreign physician, whether refugee or not; it is a plea for raising standards in backward states to a level uniform with those of our own commonwealth.

We are at war because we recognize that men do not think alike. We fight the principles of Weltmacht enunciated by Herr Schickelgruber, because we will not have fastened on us the stigma of not being allowed to think. Japan seeks to fasten on the Orient the omniscience of the Rising Sun. Does Britain lose Hong Kong, Singa-

*Reproduced by the kind permission of Dr. Lewis T. Buckman, Wilkes-Barre, Pennsylvania, and the Pittsburgh Medical Bulletin.

pore, Burma, and does she stand a good chance to lose India and Egypt because she has not allowed her subject peoples to think for themselves, or because she has never been able to educate the native and his leaders to think alike with the product of English public schools and universities? Are we witnessing the disintegration of the British Empire because of the great divergence of thought between races? Or is it as Voltaire said: "Men use thought only as authority for their injustice"?

The heroic resistance on Bataan and at Corregidor, the belief that much of the Philippines still is free, have been possible because we taught the Filipinos the principles of free government, of free schools, of sanitation; of national unity and of pride in home and country, instead of subjecting them to economic and civil slavery. The Filipinos are our allies, not our unwilling mercenaries. We do not understand China, and China is suspicious of the Occident, but we will fight for them and their right to think for themselves.

The greatest colonizers of the world, the Dutch, have lost their overseas empire and, so far as we can understand, largely because of the defection of the natives they have colonized. They have failed in 400 years to do what we accomplished in forty in the Philippines.

The Four Freedoms have been held up to us as the ideal for which we fight; they all can be summed in one: freedom of thought.

What else could it have been that made this nation powerful, peopled by English, German, French, Slavish, Italian, Scandinavian, Dutch and other nationals, when these mother nations themselves have failed to keep inviolate their frontiers, intact their colonial possessions? What else could it have been but the failure of their people to retain the right to think or the refusal of their governments to let their colonials develop the right to think?

How much has American medicine contributed to the thinking processes of our citizens? It has been declared with ample assurance that the United States Army takes the field not only in better physical shape than any other army of the world today, but is the most intelligent and best educated fighting force now engaged. Physical fitness and intelligence both come from sound bodies and healthy physiques. If we had contributed no other item to our nation's defense, our profession could still take pride in the health of our people and their sons who have been sent to war.

We are, however, making a greater and more personal sacrifice to our nation's defense. Daily are hundreds of our younger physicians being called to the colors. One cannot ignore this, nor pass over lightly the disruption of home, family, and practice made necessary by our nation's needs. We can and must respect that which those in the armed forces are doing for us at home; we can and must hold out for them the assurance of resumption of cordial professional intercourse on their return.

Contrary to the feeling sometimes expressed, military service does not mean the end of all they have known before. Though they may not realize it in the confusion and apparent futility of military practice, many will return who will be the better for it; to take in their communities an even more active and respected place than they enjoyed before. Others may find in new friendships, in acquaintance with older men of other communities, in their service in other parts of the country and the world, a desire and an opportunity to settle in distant places and go on to a richer and fuller professional life than they could ever have developed at home.

The development of the specialty of pediatrics has produced unbelievably notable results in improving the health of the nation. Picking up the job where prenatal care had reduced maternal and infant mortality, pediatrics has carried our children through healthy childhoods to contribute no small degree of the reason why our living population has increased in the last forty years. This is an example of clear thinking by American medicine.

However, with reduced birth rates and restricted immigration, these children growing to adult years are swelling the brackets in the older age groups.

Again the thinking minds of American medicine, observing the increase in the aging group, and realizing the proclivity of

the old to die of diseases typical of their age, have devoted their efforts, if not to cure these diseases, at least to make them less devastating and to make their sufferance less oppressive. We have pointed out the need to alter the life and responsibility of the older workers, that they may still fit into our modern industrial economy, not alone with the altered physical stamina of old age, but with the diseases we know to be expected in those later years.

Forced retirement on old age pension might more often be cruel than helpful. How often have we heard the individual of sixty-five bewail his unfortunate lot; how often has he said, when deprived of the right to work, even on WPA: "I can still do a day's work—and I want to." To the one mentally and physically able, forced retirement may well be the death warrant; if not physical, at least mental, with its stultifying condemnation of energy and pride in work.

Granted that with advancing years in the skilled trades, as an example, comes a slowing of physical strength and muscular reaction and coordination, the mental processes may still be active and even more valuable to the trade because of the experience, the judgment, the pride in craftsmanship that are the rewards of later life.

So has developed the specialty of geriatrics, as thinking minds of American medicine have pictured our changing population and its ills. If pediatrics was the wonder specialty of the past thirty years, will geriatrics develop to the point where the specialist in diseases of the aging will hang over his door: "Children under sixty-five not allowed here"?

Thus has American medicine contributed to this war a nation that can produce the healthiest, best-fed, and most intelligent army of all the combatants. At the same time, we see ourselves dangerously near to losing this freedom of thought which has been the basis of the development of our country and the basis of the development of our medical knowledge.

We see ourselves near to losing our freedom of thought because our elected servants in public office have planned it differently.

What can we as physicians and citizens expect of the future? Do you recall the disturbance in our ranks in the twenties in the threat of veterans' hospitalization? Does it not seem trite at the present to look back on those years and recall the alarm with which we watched the spread of the Veterans' Administration? We can well make up our minds now that the picture will be repeated at the end of the present hostilities, multiplied many times over.

We have fought regimentation, but a greater regimentation than any we pictured has been forced on us by the needs of common defense. The ultimate objective behind the National Manpower Resources Board headed by Mr. McNutt cannot even be pictured by the individual. It lies hidden in the M-day plans of the minds of those who plan it that way in Washington.

If we cannot foresee the future, of this we can be reasonably sure: that the policies of our government will not be dictated by either the Republican or the Democratic party. They will be dictated by a third party, probably a Labor party, because we cannot at present see any groups powerful enough to seize the power that has been denied both Republican and Democratic, except that group which has been favored by legislation and court decree above all other groups of this country.

You recall the rise of gangsterism in the prohibition of the twenties. You recall that prohibition was foisted on the country as a war emergency. You recall that millions of young Americans returned to civil life in 1919 without jobs, their schooling and apprenticeships having been interrupted in 1917. Trained to use arms, machine guns; trained to the outdoor life and the highway; trained to the use of that new method of transportation, the motor truck; is it any wonder that they turned to prohibition, high-jacking, and gangsterism? The same aimlessness and despair motivated the German youth after the mutiny of the fleet in 1918, and continued until the rabid leaders of Hitlerism seized their fancy.

Have you tried to picture what will be the outlet of the energies of 4,000,000 young men returning to civil life from our armies after the present conflict? There will be made work by public agencies; there will be

unprecedented demands for building reconstruction here and abroad; there will be an enormous increase in the commercial aviation industry; there will be enormous activity in converting war industries again to the manufacture of automobiles, refrigerators, radios, and tires; there will be an even greater expansion of motor highways and motor travel than ever before; there will be a lush field for the labor organizer; there will be a struggle for power in the high commands of labor; there will be recruiting of labor guerrillas; and the same element that turned to high-jacking and gangsterism in 1919, looking again for an outlet for their energies and talents, will turn to organizing and controlling labor. That, I predict, will be the picture of events if policies continue as they have.

For the propertied class, the professional man, the clerk: this promises to be a wilder reconstruction than the South experienced in the late sixties. And the medical profession will be among the first to feel the threatened changes.

"No," you say, "I don't agree with you."

"Fine," I say. "Isn't it fortunate that not all men think alike?"

Or shall we leave it to Voltaire: "I disapprove of what you say, but I will defend to the death your right to say it."

How in the past have we tried to foresee the future? Well, when someone came along smart enough to visualize hospitalization insurance, we failed to see it and fought it, not in principle but in detail. Yet this was something the people wanted and, as a result, the nonprofit corporations have prospered.

When its corollary, prepaid medical insurance, came along, some of us saw the future in one light and paved the way for it in this state. Some saw it in a different light and fought it and even now refuse to support it. But I will also make the assertion that in the postwar readjustment to come, our nonprofit Medical Service Association will be one of the vital factors to help us stabilize medical practice somewhere near what we have enjoyed in the past on the basis of private initiative.

There is no time, however, to wait for this war to be over to prove the worth of nonprofit prepaid medical service. Even now are heard threats of legislative action to modify our own enabling act to place its control under the state. This must be anticipated by early action on our part to strengthen our insurance corporation, to expand it, to teach the public to use it, to teach the profession to support it, and to demonstrate that private initiative properly organized can furnish the people that which the agitators would segregate in a bureaucracy.

When Budget for Health is proposed, the principle justifying its need and establishment is clouded by the human frailties of individuals, whose peculiarities of behavior should not damn an entire medico-economic system.

Think, America! Think through and see the principle behind methods. Look for the trees; not the forest. Let us emphasize our God-given right to the freedom of thinking. Let us recognize that all do not think alike, but let us take the best thought of most men and face a future that need not be gauged by freedom of speech, freedom of religion, freedom from want, and freedom from fear, but will be measured by the degree with which we have preserved the right to freedom of thinking; for in this is the freedom of opportunity. Men came to this country for freedom of opportunity, the right to free thought. They wedded to women who had the same desire, and created a vast and strong nation that now fights for that same freedom to think. Because the nation built on such a foundation is a free and a strong nation, it will prevail. And when it does, let us meet the changes engendered by the peace and the world responsibility inherited with the victory, and let us go on, however much our personal professional lives may be altered, to make our nation a still stronger home for our children and our children's children, accepting the changes in our way of life as need be, but preserving above all the right of men not to think alike.

AN INTERPRETATION OF DRAFT REJECTION FIGURES*

W. W. BAUER, M.D., Chicago, Illinois

Before and immediately after Pearl Harbor considerable concern was felt in both official and nonofficial circles about rejection of young men examined for the Army under the Selective Service law. Newspapers published headlines indicating that from forty to fifty per cent of young men examined, depending upon the locality, were being rejected. This fact, when superficially observed, led to the conclusion that the nation's health must be in a deplorable state if only fifty per cent of the young men called to the colors were found physically fit.

The suggestion was made that "the World War draft findings afford some indication of the numbers of men who, because of physical and mental impairments, will be classified as not available for general military training . . . and also the impairments which will be recorded among them." This observation by Britten and Perrott[1] was interpreted as an indication that figures to be developed in the examination of 1941 drafts could be regarded as directly comparable with similar figures developed in the 1917-1918 draft, although Britten and Perrott did not actually say so. They pointed out that twenty-one per cent were rejected for military service, thirty-one per cent were classified as not available for general military service, and fifty-two per cent had one or more recorded defects. There is an overlap in these percentages which are, of course, exclusive of men found acceptable. Britten and Perrott estimated on the basis of the 1917-1918 draft that to meet a quota of 800,000 by July 1, 1941, a number fifty per cent in excess of that would have to be examined; in short, that thirty-three and one-third per cent would be rejected. They did not take into consideration any differences between the 1918 and the 1941 standards or any differences in the examination. Both of these factors have proved of great significance.

Captain George E. Leone[2] has reported the causes for rejection for entrance into the regular Army among volunteers enlisting in the southern New York district of the Second Corps Area in June, July, and August, 1940. Among these, 32.5 per cent were rejected. Of the rejections, twenty-three per cent were due to defects of the teeth, twenty-one per cent to eye defects, fifteen per cent to height and weight, ten per cent to feet, and ten per cent to defects of the ears.

Ten Per Cent Rejected Educationally

Rowntree, McGill, and Folk[3] report on a survey of 19,923 medical records of drafted American youths between the ages of twenty-one and thirty-six. This sample was drawn from each state in proportion to total registration and consists of a cross section of registrants examined prior to May 31, 1941. On the basis of this sampling, they estimated that about fifty per cent of the approximately 2,000,000 registrants examined up to that time were found unqualified for general military service "physically, mentally, and educationally." Of these, 900,000 were so classified because of lack of physical and mental qualifications, and the remaining 100,000 because of lack of educational qualifications. In other words, ten per cent of the rejections were for inability to read and write the English language in a manner equivalent to a fourth-grade student in an American grammar school. Too often, this fact is not mentioned. More than one-half of the rejectees were found qualified for limited military service and only 430,000 were totally disqualified for any military service. This begins to look a little different from the flat, unqualified statement that fifty per cent of our selectees have been rejected "for physical reasons."

At this point it is worth while to mention another phrase frequently overlooked, namely, "unlimited military service." Mod-

*Prepared for presentation before The Medical Society of the State of Pennsylvania, Pittsburgh Session, October 6, 1942. Dr. Bauer is Director of the Bureau of Health Education of the American Medical Association and Associate Editor of *Hygeia, The Health Magazine*. Reprinted from *The Pennsylvania Medical Journal*, December, 1942.

ern warfare requires a higher degree of physical, mental, emotional, and educational fitness than any previous war. This is largely by reason of its mechanization and the resulting demand for higher capabilities, greater initiative, and better judgment on the part of even the lowest ranking soldier. For this reason the standards on which the examinations and, therefore, the rejections are based have been set very high. They were, in fact, the highest ever to be used for such a purpose. Fishbein[4] points out that "one might take every group of reasons for rejection in our own army and show that by far the large majority rejected for our army would have been found physically fit for military service in Germany." Lieutenant Colonel Amos R. Koontz, for a time state medical director of the Selective Service System for the State of Maryland, says: "The sturdy state of the health of the men now being inducted into the army is reflected in the much lower morbidity rate at the camps now than was the case in 1917."

The draft examinations were begun at a time when the nation was not fully committed to actual entrance into the war. Before Pearl Harbor we were technically though precariously at peace. There appeared to be time to make careful selections, to resolve doubts in favor of both government and selectee by rejecting and, in general, to adopt a conservative, exacting attitude toward the physical condition of selectees.

Serologic and Radiologic Tests Now Included

The high standards established were interpreted in the light of considerable advances in medical knowledge and diagnostic method since 1917. Lieutenant Colonel Harold A. Furlong,[5] medical director of Selective Service in Michigan, points out: "The examination is specialized. Every part of it is planned for the Army's needs. It is not a general physical checkup, an insurance or employment examination, or anything but a careful examination to see whether or not a man is fitted for service in the Army. In view of the peculiar requirements of a modern army, it is not surprising that many men are rejected. In many cases, men rejected are perfectly fit for their peacetime jobs, and are as healthy as men who are taken into the Army."

Colonel Furlong proceeds to point out that blood tests for syphilis and X-ray chest examinations are among the new features of the examination. The entire procedure is more searching and careful than was the fact in 1917-1918. Interviews with psychologists eliminate many men on emotional grounds who were inducted into the last World War and had to be discharged before they had gone far in training or who broke down under the strains of combat or the rigors of field service.

In view of standards admittedly higher than ever before in our history, higher than standards in such an exacting militaristic system as the German, and considering that the examination is more searching than ever before, I believe that a fifty per cent rejection among men taken without previous preparation from all walks of life is by no means disgraceful, or even discouraging. It can be considered definitely encouraging, especially when we remember that a large number of the defects, as indicated by Colonel Furlong, were not directly reflected in general poor health of the soldier as a biologic entity or individual. First of all, we must remember that according to Rowntree, McGill, and Folk[3] only 430,000 of the 900,000 rejections for physical and mental reasons were total rejections; 470,000 remain qualified for limited military service. The principal causes of rejection estimated by Rowntree, McGill, and Folk were, in the order named, teeth, eyes, cardiovascular diseases, musculo-skeletal defects, venereal diseases, mental and nervous defects, hernia, ears and hearing, feet, and lungs, plus a large group of miscellaneous causes.

With respect to the physical fitness of those inducted, Rowntree, McGill, and Folk make the following significant statement: "The administration by the Selective Service System and the Army of what might be considered fairly high physical standards has produced, unqualifiedly, an army with the best physical condition of any comparable sized army in history. In many cases such modern conveniences as automobiles, streetcars, elevators, and household gadgets

have produced flabbiness of muscle and at times paunchiness in the waistline. This, however, is not to be confused with soundness of health, which is determined more by sturdiness of framework, a sound heart, sound lungs and respiratory system, a good digestive system, and a stable mental and nervous system."

Military Rejectees Become Life Insurance Acceptees

If further proof were needed that men unavailable for unlimited military service are for the most part healthy individuals who may look forward to a long and satisfactory life, it is found in the following statement[6] by the Metropolitan Life Insurance Company:

"It is evident, then, that great caution must be used in drawing conclusions from the crude statistics of physical defects disclosed by the Selective Service examinations, and in comparing them with World War figures. The data do not in any way support assertions that there has been deterioration in our national health. Even where comparative data show improvement, they fall far short of measuring its amount. Actually, the causes of most rejections today for military service do not seriously impair the individual for ordinary civilian occupations, nor do they have markedly adverse effects on his health and longevity. . . .

"A good indication of the greater strictness of selection for military service today is that the rejection rate is far higher than in the selection of risks for ordinary life insurance."

Nor is there support for the claim that the draft rejections indicate that the nation's health is bad. All official statistics point the other way. Without wearying you with details, let me call to your minds what you know quite well, namely, that in the United States people in all walks of life have enjoyed better health conditions than ever before in their own history, and insofar as international comparisons are valid, we need not be ashamed to set our health record over against any other in the world. We have a low general death rate, getting lower but approaching an irreducible minimum. We have low and falling death rates among infants, among mothers in childbirth, and for such diseases as tuberculosis and many of the acute communicable diseases. It is only the increasing length of life and the consequent survival of more individuals to the age of common incidence which has kept the diabetes death rate from falling; even so, thousands of diabetics today are living longer with their disease than they might have been expected to live without it. The only death rates which are consistently going higher are those from heart and arterial diseases and other conditions peculiar to or common in old age. So long as these rates continue to be composed of increasing percentages of deaths at advanced ages, they are in themselves evidence of the satisfactory state of the nation's health.

In my office are collected dozens of references in which public health officials have reported new records of low incidence of disease and death in their jurisdictions. Add to this the fact that Selective Service registrants and college students of this generation are taller, stronger, and heavier than those of generations past and we find that any claim that our nation's health is poor rests on tottering foundations indeed.

The fact is, as pointed out by Colonel Furlong, as well as by Rowntree, McGill, and Folk, the Army rejection figures are not an index to the nation's health and should not be so interpreted. They are simply indications of the availability of American youth for unlimited military service, which is another way of saying the most grueling and punishing ordeal to which human beings have ever been called. I think we can be proud rather than ashamed that fifty per cent of our young men were found ready, that many of the remaining are now capable of somewhat lesser service, and that many of these can be put in acceptable condition to be added to the number originally accepted for unlimited military service.

Fuel for Compulsory Health Plans

Finally, our precipitation into the war and subsequent events have lowered many of the standards and erased many of the statistics which I have quoted in here at length. I have referred to them because I feel con-

fident that the time will come when they will be used to indicate that medicine, dentistry, public health, and education in the United States have been a failure. I foresee the appearance of these draft rejection figures, minus full explanations, as a plea for changes in medical practice, or in dental practice, or as an excuse for grandiose projects in the name of public health in the postwar reconstruction period. If they do so appear, it behooves those who understand them to explain them fully to our people.

At the same time, we cannot afford to ignore the significance of draft rejection figures. We need to examine carefully into the reasons for the rejections. Leading all these are defects of teeth. Unfortunately this is not something about which we can, in the American fashion, "do something." There is not enough scientific basis for a satisfactory attack upon this problem. Until we know more definitely the exact relationship to dental decay of heredity, diet, mouth hygiene, or factors as yet unknown, we lack complete preventive measures which can be prescribed with confidence. We must be content, pending new knowledge, with palliative measures, though even these give us enough to do! Second in the list are eye defects, including errors of refraction, color blindness, accidental injuries, and numerous other causes. There is as yet nothing that we can do positively to guarantee that another generation will be free from these defects, of which the causes are not now controllable. To assume that creation of expanded public health programs and the possible expenditure of millions of dollars in either of these fields will assure correction of even a large percentage of the defects included in these categories is to go beyond the facts. Some unknown and probably varying percentages of these and other defects can and should be corrected, but until we have a more profound knowledge of why the human body varies from a theoretical ideal, we cannot honestly promise correction of many at present irremediable defects. It is very important that we shall not make promises which we cannot keep.

There is reason to believe that the public has not been thoroughly convinced of the supposed significance attached to draft rejections in relation to the nation's health. Kenneth Wright,[7] in a column published in the Chicago *Sun*, points out: "Those alarmist stories about the large numbers of selectees and would-be enlistees rejected because of defective teeth require some qualifications. The standards by which our armed services pick and choose are the highest in the world; and a large percentage of those rejected on physical grounds here would be considered acceptable in nearly every other country. Moreover, age, height, weight, etc., standards differ in our services. A man rejected by one often is acceptable to another.

"A Kentucky lad, honor graduate from a military academy, obtained an appointment to Annapolis. He passed all mental examinations and physical tests, but was rejected because he lacked two teeth. Whereupon the Army accepted him as a flying cadet. . . . Possibly now he's being another Captain Colin Kelly, Jr."

To the extent that remediable defects are included among the rejections, these rejections are certainly an indication that medical or dental care which should have been given was not given. The principal reason that it was not is, in most instances, a lack of recognition of the necessity for medical or dental care. Poverty, often given as the excuse, does not constitute a good reason because so many opportunities exist in this country through which medical or dental care can be procured by those unable to pay for it out of their own resources. The fact that young men are found deafened may in some instances represent the tragic outcome of acute infectious disease, where the best of medical care proved unavailing, but it may also represent persistent neglect, by reason of ignorance or indifference, of nose, throat, or ear conditions which in their incipiency would have been correctable. The presence of a hernia which could have been repaired definitely represents failure to procure medical care, whatever the reason may have been.

It must be recognized that among these rejectees are some whose physical defects persist because they adhere to beliefs which reject medical help. Others believe in accepting service from unqualified or inade-

quately trained practitioners. Many rely upon self-medication.

Doctor-Teacher Is Challenged

The draft figures, even though they cannot be interpreted as indicating a deterioration in the nation's health since 1917, are, nevertheless, a challenge. They are a challenge to bring home to the people a knowledge of what medical science can do if it is permitted to be applied in time. This is a process of education for which we must look to our schools and colleges, our health departments, and the medical and allied professions.

Physicians must practice more and more preventive medicine. Preventive medicine goes hand in hand with health education. The draft rejection figures constitute a challenge to the medical profession to remember, even better than they have customarily remembered, that the word "doctor" originally meant "teacher."

Bibliography

1. Britten, Rollo H., and Perrott, George St. J.: Summary of Physical Findings on Men Drafted in the World War. *Public Health Representative*, Vol. 56, No. 2, January 10, 1941.

2. Leone, George E.: Causes for Rejection for Entrance into the Regular Army Due to Physical Defects, *Journal American Medical Association*, p. 1283, October 12, 1940.

3. Rowntree, Leonard G., McGill, Kenneth H., and Folk, Oliver H.: Health of Selective Service Registrants, *Journal American Medical Association*, p. 1223, April 4, 1942.

4. Fishbein, Morris: American and German Standards of Physical Fitness, *Hygeia, The Health Magazine*, p. 952, December, 1941.

5. Furlong, Harold A.: Why Are Three Out of Ten Men Being Rejected for the Army? *Michigan Public Health*, p. 108, June, 1941.

6. Physical Fitness of American Youth, *Statistical Bulletin*. Metropolitan Life Insurance Co., Vol. 22, No. 6, June, 1941.

7. Wright, Kenneth: Up to Date, Chicago *Sun*, December 23, 1941.

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in four categories as follows: first, those who have been commissioned and are on duty; second, those who have been commissioned and are awaiting orders; third, those who have applied for a commission and are awaiting action by the proper authorities; fourth, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Cannon	R. C. Van Hook	Auburntown
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Chester	Hunter M. Steadman	Henderson
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville
Davidson	Jas. A. Loveless	Nashville
Davidson	J. P. Lowe	Nashville
Davidson	Sol Lowenstein	Nashville

*Deceased.

Davidson—Jas. R. McMillan—Nashville
Davidson—Robt. H. Magruder—Nashville
Davidson—C. G. deGutierrez-Mahoney—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—James O. Barker—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Greene—John G. Zirkle—Greeneville
Hamblen—M. J. Bellaire—Morristown
Hamblen—Robert A. Purvis—Morristown
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Milton C. Semoff—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar
Hardeman—Wiley D. Lewis—Bolivar
Hardeman—M. J. Stewart—Whiteville
Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville
Hawkins—A. S. Yates—Rogersville

Haywood—Robert C. Berson—Brownsville
Henry—J. W. Didcoct—Paris
Henry—Arthur C. Dunlap—Paris
Henry—J. C. McKissick—Paris
Henry—Geo. H. McSwain—Paris
Hickman—Wm. L. Phillips—Centerville
Jefferson—William B. Malcolm—Dandridge
Jefferson—Frank L. Milligan—Jefferson City
Knox—A. J. Weber—Bearden
Knox—Malcolm F. Cobb—Concord
Knox—B. B. Mitchell—Fountain City
Knox—Charles M. Armstrong—Knoxville
Knox—Spencer Y. Bell—Knoxville
Knox—R. G. Brashear—Knoxville
Knox—A. M. Carr—Knoxville
Knox—E. E. Carrier—Knoxville
Knox—Jack Chesney—Knoxville
Knox—L. W. Chesney—Knoxville
Knox—H. S. Christian—Knoxville
Knox—H. E. Christenberry, Jr.—Knoxville
Knox—Sam M. Cooper—Knoxville
Knox—T. P. Day—Knoxville
Knox—W. A. DeSautelle—Knoxville
Knox—T. B. Drinnen—Knoxville
Knox—Richard N. Duffey—Knoxville
Knox—J. Gilbert Eblen—Knoxville
Knox—Jas. B. Ely—Knoxville
Knox—Frank Faulkner—Knoxville
Knox—Glenn D. Grubb—Knoxville
Knox—Geo. G. Henson—Knoxville
Knox—Oliver W. Hill, Jr.—Knoxville
Knox—C. R. Huffman—Knoxville
Knox—C. E. Irwin—Knoxville
Knox—Willard J. Irwin—Knoxville
Knox—H. H. Jenkins—Knoxville
Knox—J. O. Kennedy—Knoxville
Knox—A. H. Lancaster—Knoxville
Knox—R. P. Layman—Knoxville
Knox—J. H. Lesher—Knoxville
Knox—J. D. McCullough—Knoxville
Knox—Wm. T. McPeake—Knoxville
Knox—J. L. Montgomery—Knoxville
Knox—Wm. S. Muse—Knoxville
Knox—E. P. Nicely—Knoxville
Knox—Frank O. Nichols—Knoxville
Knox—Ralph Nichols—Knoxville
Knox—B. M. Overholt—Knoxville
Knox—Jos. B. Parker, Jr.—Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr.—Knoxville
Knox—Herschel Penn—Knoxville
Knox—Jarrell Penn—Knoxville
Knox—H. L. Pope—Knoxville
Knox—John S. Powers, Jr.—Knoxville
Knox—Jos. L. Raulston, Jr.—Knoxville
Knox—Hugh C. Reaves—Knoxville
Knox—J. S. Ruffin, Jr.—Knoxville
Knox—J. H. Saffold—Knoxville
Knox—A. B. Shipley—Knoxville
Knox—P. D. Smith—Knoxville
Knox—J. M. Stockman—Knoxville
Knox—Geo. W. Tharp—Knoxville
Knox—Phil Thomas—Knoxville
Knox—Fred West—Knoxville
Knox—Leon J. Willien—Knoxville
Lake—W. T. Rainey—Tiptonville
Lauderdale—J. H. Nunn—Ripley
Lauderdale—W. Val Sanford—Ripley
Lawrence—L. C. Harris, Jr.—Lawrenceburg
Lincoln—R. E. McCown—Fayetteville
Lincoln—Ben H. Marshall—Fayetteville
Lincoln—M. C. Woodfin—Fayetteville
Lincoln—E. S. Leek—Petersburg
Loudon—F. E. Hufstedler—Lenoir City
Loudon—Avery Leeper—Lenoir City
McMinn—S. B. McClary, Jr.—Etowah
McMinn—A. W. Reeser—Athens
McMinn—Lester H. Shields—Athens
McNairy—T. N. Humphrey—Selmer
McNairy—H. O. Mason—Adamsville
Madison—L. D. Farragut—Bemis
Madison—H. H. Herron—Bemis
Madison—Roderick C. Webb—Bemis
Madison—C. H. Brown—Jackson
Madison—W. B. Camp—Jackson
Madison—J. E. Douglass—Jackson
Madison—R. S. Hellmann—Jackson
Madison—Frank A. Moore—Jackson
Madison—Carl Rogers—Jackson
Madison—A. R. Taylor—Jackson
Madison—J. R. Thompson, Jr.—Jackson
Madison—P. E. Wylie—Jackson
Madison—Stevens Byars—Mercer
Marshall—A. L. Cooper—Chapel Hill
Marshall—H. B. Disharoon—Lewisburg
Maury—W. N. Cook—Columbia
Maury—Robin Lyles—Columbia
Maury—J. B. Miller—Columbia
Monroe—D. F. Heuer, Jr.—Sweetwater
Monroe—R. M. Price—Sweetwater
Montgomery—J. A. Culbertson—Clarksville
Montgomery—John H. Ledbetter, Jr.—Clarksville
Morgan—R. A. Steadman—Wartburg
Obion—Hal E. Bennett—Troy
Obion—Edward W. Barksdull—Union City
Obion—R. M. Darnall—Union City
Overton—H. B. Nevans—Livingston
Pickett—Floyd B. Hay—Byrdstown
Polk—Henry S. Harris—Benton
Polk—J. H. Lillard—Benton
Polk—H. H. Hyatt—Copperhill
Putnam—H. H. Taylor—Cookeville
Putnam—R. L. Akin—Monterey
Roane—L. A. Killeffer—Harriman
Roane—G. D. Schuessler—Oliver Springs
Roane—F. Davis Owings—Rockwood
Robertson—J. C. Lunderman—Orlinda
Robertson—W. P. Stone—Springfield
Rutherford—Harvey W. Carter—Murfreesboro
Rutherford—Thos. G. Gordon—Murfreesboro
Sevier—John A. Conroy—Newton, Mass.
Sevier—Charles E. Pack, Jr.—Sevierville
Sevier—R. M. Perry—Sevierville
Shelby—J. H. Adler—Memphis
Shelby—R. Roger Anderson—Memphis
Shelby—Chas. G. Andrews—Memphis
Shelby—J. M. Aste—Memphis
Shelby—Edward R. Atkinson—Memphis
Shelby—Chas H. Avent—Memphis

Shelby—J. C. Ayers—Memphis
Shelby—James M. Bethea—Memphis
Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—James M. Brockman—Memphis
Shelby—W. T. Braun—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Harold Feinstein—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—R. A. Hennessey—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingraham—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Richard King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Geo. E. Paullus, Jr.—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—Hugh R. Raines—Memphis
Shelby—S. L. Raines—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Chas. G. Robinson—Memphis
Shelby—Wm. A. Runkle—Memphis
Shelby—P. B. Russell, Jr.—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—B. S. Taley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis
Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis

Shelby—J. E. Watson, Jr.——Memphis
Shelby—Julian K. Welch, Jr.——Memphis
Shelby—S. I. Wener——Memphis
Shelby—Horace G. Williams——Memphis
Shelby—W. L. Wilhelm——Memphis
Shelby—Harwell Wilson——Memphis
Shelby—John M. Wilson——Memphis
Shelby—J. E. Wilson——Memphis
Shelby—C. Frank Yates——Memphis
Sullivan—J. W. Erwin——Blountville
Sullivan—Tom Kuhnert——Bristol
Sullivan—John Marcy——Bristol
Sullivan—G. W. McCall——Bristol
Sullivan—B. W. Mongle——Bristol
Sullivan—L. B. Snapp, II——Bristol
Sullivan—F. L. Alloway——Kingsport
Sullivan—R. W. Asthalter——Kingsport
Sullivan—H. O. Bolling——Kingsport
Sullivan—R. H. Brown——Kingsport
Sullivan—H. S. Burem——Kingsport
Sullivan—P. W. Cox——Kingsport
Sullivan—John B. Hamilton——Kingsport
Sullivan—R. B. Howard——Kingsport
Sullivan—K. R. Kiesau——Kingsport
Sullivan—M. D. Massengill, Jr.——Kingsport
Sullivan—J. F. Morton——Kingsport
Sullivan—R. G. Nichols——Kingsport
Sullivan—W. B. Payne——Kingsport
Sullivan—Raymond A. Steadman——Kingsport
Sumner—P. M. Huggins——Gallatin
Sumner—Benjamin A. Warren——Gallatin
Tipton—N. L. Hyatt——Covington
Tipton—J. S. Ruffin, Jr.——Covington
Tipton—O. J. Swisher——Covington
Unicoi—R. H. Harvey——Erwin
Unicoi—W. C. Humbert——Erwin
Unicoi—H. L. Monroe——Erwin
Union—Norman H. Rucker——Luttrell
Washington—C. M. Creech——Johnson City
Washington—H. B. Fuqua——Johnson City
Washington—C. S. Gresham——Johnson City
Washington—W. D. Hankins——Johnson City
Washington—Harry Myron, Jr.——Johnson City
Washington—W. L. Poole——Johnson City
Washington—W. G. Preas——Johnson City
Washington—Hugh F. Swingle——Johnson City
Washington—Charles P. Wofford——Johnson City
Washington—H. B. Cupp——Mountain Home
Washington—John Busey——Mountain Home
Washington—Ernest Marcus——Mountain Home
Wayne—Dexter L. Woods——Waynesboro
Weakley—Paul W. Wilson——Dresden
Weakley—Madison H. Buckley——Martin
Williamson—W. F. Roth, Jr.——Franklin
Wilson—O. R. Hill——Lebanon
Wilson—James McFarland, Jr.——Lebanon
Wilson—W. K. Tilley——Lebanon

DOCTORS WHO HAVE RECEIVED COMMISSIONS AND AWAITING ORDERS TO ACTIVE DUTY

County	*Name*	*Address*
Davidson	Newton A. Cannon	Nashville
Davidson	Nathan P. Horner	Nashville
Hamilton	Walter Buckner, II	Chattanooga
Hamilton	Carl A. Hartung	Chattanooga
Hamilton	Eugene F. McCall	Chattanooga
Knox	R. H. Butler	Knoxville
Knox	Sam P. Davidson	Knoxville
Knox	Peter J. Flippin	Knoxville
Knox	D. T. Hoey	Knoxville
Knox	R. E. Lawson	Knoxville
Knox	L. C. Ogle	Knoxville
Knox	J. W. Riggs	Knoxville
Knox	John A. Range	Knoxville
Knox	Jacob M. Williams	Knoxville
Madison	Roy M. Neudecker	Jackson
Shelby	H. E. Atherton	Memphis
Shelby	Joseph D. Cleveland	Memphis
Shelby	Paul Hill Goodman	Memphis
Shelby	Harry Z. Landis	Memphis
Shelby	Robert E. Lawson	Memphis
Shelby	Ira F. Porter	Memphis
Shelby	Bryant S. Swindoll	Memphis

DOCTORS WHO HAVE APPLIED AND WHOSE COMMISSIONS ARE PENDING

Anderson—J. L. Sergeant——Lake City
Campbell—C. E. Ausmus——Jellico
Davidson—S. W. Ballard——Nashville
Davidson—Theodore W. Davis——Nashville
Davidson—T. Emerson Simpkins——Nashville
Dyer—Robt. G. Latimer, Jr.——Dyersburg
Hamblen—Chas. S. Crook——Morristown
Knox—E. M. Eddington——Knoxville
Knox—Wiley R. Smith——Knoxville
Knox—John Szewczyk——Knoxville
Lincoln—James V. McRady——Fayetteville
Shelby—M. W. Adams——Memphis
Shelby—R. F. Bonner——Memphis
Shelby—L. L. Carter——Memphis
Shelby—Clyde V. Crosswell——Memphis
Shelby—J. E. Holmes——Memphis
Sullivan—W. C. Correras——Bristol

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff——Clinton
Cannon—Carl E. Adams——Woodbury
Anderson—A. J. Butler——Clinton
Carter—John L. Chesnut——Elizabethton
Carter—E. T. Pearson——Elizabethton
Coffee—Wm. M. Minnis——Manchester
Davidson—E. E. Anderson——Donelson
Davidson—R. Z. Linney——Madison
Davidson—Joe E. Sutherland——Madison College
Davidson—J. J. Ashby——Nashville
Davidson—Edward H. Barksdale——Nashville
Davidson—Lynch D. Bennett——Nashville
Davidson—Randolph A. Cate——Nashville
Davidson—David W. Hailey——Nashville
Davidson—Andrew N. Hollabaugh——Nashville
Davidson—Thos. M. Jordan——Nashville
Davidson—J. K. Kaufman——Nashville
Davidson—Carl Kirchmaier——Nashville
Davidson—N. B. Morris——Nashville
Davidson—James C. Overall——Nashville

Davidson—James N. Owens—Nashville
Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville
Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Herman Spitz—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville
Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—Rae B. Gibson—Greeneville
Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—John Moore—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Morgan—Wm. E. Gallion—Oakdale
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Charles K. Lewis—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Roland H. Myers—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Donald W. Oelker—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Leo F. Pierotti—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—R. O. Rychener—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Washington—G. V. Stanton—Limestone
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

FEBRUARY, 1943

EDITORIAL

Pursuant to the action of the Board of Trustees of the Tennessee State Medical Association on January 10, 1943, I hereby call a meeting of the House of Delegates of the Tennessee State Medical Association for 10:00 A.M., Sunday, April 11, 1943, at the Hotel Noel, Nashville, Tennessee.

JAMES B. STANFORD, M.D.,
President.

The Record of the Basic Science Bill in the 1941 and 1943 Session of the Legislature

It will be remembered that the Basic Science Bill passed both the Senate and House in 1941. It was vetoed by the Governor in the last hours of that session. The veto was attached to the bill at such a time that it was not possible to get it back to the House and Senate for passage over his veto. There was a long interim, more than five days intervening, between the passage of the bill and the veto.

In the interim between the 1941 and the 1943 sessions reports came to members of the legislative committee of the State Association to the effect that Governor Cooper had become convinced that he committed an error in vetoing the bill. These reports were from several unimpeachable sources.

Long before the 1943 session two members of Governor Cooper's cabinet requested a conference with members of the legislative committee of the State Association with reference to the Basic Science Bill. The conference was agreed to and held. The Governor's representatives said that with some minor changes in the bill it would have the unqualified endorsement of the Governor.

The members of the committee were led to believe that they represented the Governor in the conference.

All the amendments that were suggested were accepted and the office of the Attorney General drafted them into a bill. It was represented to the committee that the bill in that form had the approval of the Governor. It was published in the JOURNAL. In that form it was introduced in the 1943 session and passed first and second reading in both houses and was referred to the Committee on Sanitation and Public Health in each House.

Before a committee hearing was held the Governor called members of the committee to say that he would again veto the bill in that form. At the same time he expressed the opinion that the approach of the medical doctors was wrong and furthermore that the passage of the bill in that form would not correct existing evils. He further expressed opinions as to what the amendments should be. They were essentially as follows: That chiropractors and osteopaths be excluded from the provisions of the bill and that osteopaths and chiropractors be limited in their practice to their respective callings.

It is a matter of general knowledge that osteopaths even have narcotic licenses and they prescribe drugs and administer all forms of drugs which means, of course, they do not limit their practice to osteopathy. In fact they practice medicine and osteopathy.

It seemed to the committee and to their advisers that it was necessary that we accept these amendments proposed by the Governor. They were then written into the bill.

In effect they exempted chiropractors and

osteopaths from the provisions of the bill and made the following provisions:

"The above exemption, as applied to chiropractors and osteopaths shall be effective only if they do not possess, prescribe or administer drugs in any form, and the possession of a Federal or State permit or license to possess, prescribe, and administer narcotics or other drugs shall be construed as prima facie evidence of a violation of the provisions of this Act."

The bill thus amended was submitted for the original bill in the committee.

When it came up in the Senate for a vote, on motion of Senator Grubbs of Chattanooga, it was rereferred to the committee for further hearing. At the hearing chiropractors and osteopaths appeared before the committee in violent opposition of the bill in that form. One man practicing osteopathy in Memphis went so far as to say that that particular provision of the bill would destroy seventy-five per cent of his practice.

Chiropractors also opposed the passage of the amendment bill notwithstanding the fact that their attorney said to the committee that he had advised his clients (chiropractors) that their opposition was no longer tenable.

Both groups have represented themselves as nonmedical healers, yet they were in violent opposition to the passage of a bill which does not affect them in the least so long as they practice osteopathy and chiropractic.

On the floor of the House the bill was further amended to make the above provision not apply to those already licensed to use drugs.

It will be recalled that the osteopaths are authorized by state law to use narcotics, and as a result of this law obtain federal narcotic license.

In this final form the bill passed both the Senate and the House.

The JOURNAL must go to press and there still may be more to say about it in a later issue.

BASIC SCIENCE

Provisions in section fourteen of the Basic Science Bill became the focal point of controversy after the bill was amended, as stated in the editorial above.

The following is the final form as it passed both Houses:

Section Fourteen. Be it Further Enacted, That this Act shall not be construed as applying to dentists, osteopaths, chiropractors, naturopaths, nurses, midwives, optometrists, chiropodists, barbers, cosmeticians, or Christian Scientists practicing within the limits of their respective callings; nor to persons specifically permitted by any law to practice any form of the healing art in restricted areas without license; nor to the sale, manufacture, or advertising of drugs, medicines, household remedies, chemicals, and household preparations, provided that the vendor, maker or advertiser refrains from any attempt to diagnose.

The above exemption, as applied to chiropractors and osteopaths shall be effective only if they do not possess, prescribe or administer drugs as do medical doctors, and the possession of a Federal or State permit or license to possess, prescribe, and administer narcotics or other drugs shall be construed as prima facie evidence of a violation of the provisions of this Act.

Provided, however, that this Act shall not deprive any person, who has a license issued prior to the passage of this Act, from practicing any of the healing arts, in the same manner and to the same extent as permitted and authorized by law prior to the passage of this Act.

Nothing herein shall be construed to deny any person practicing said healing arts, prior to passage of this Act from renewing his narcotic and drug license where previously authorized by law.

Some nice editorials have appeared in the *Jackson Sun* and the *Maury Democrat*, both of which point to the record of the medical profession in these United States.

A word of appreciation was written to the editors of these papers on behalf of the medical profession of Tennessee, and it is with their kind permission that they are reproduced on the editorial page of the JOURNAL for the information and inspiration of the membership.

Match This Record

The following editorial appeared in the *Jackson Sun*, Jackson, Tennessee, and is reproduced by the kind permission of Mr. Harris Brown, managing editor:

"MATCH THIS RECORD

"More than 28,000 physicians volunteered their services without pay to the Selective Service Boards. More than 40,000 physicians gave up their careers in civilian practice to serve with the armed forces. The directing board of the Procurment and Assignment Service for Physicians, and its many representatives throughout the nation, serve without one cent of remuneration. The hundreds of physicians on the consultant committee of the Division of Medical Science of the National Research Council, and in the Office of Research and Development, contribute time and income without one cent of remuneration. Throughout the nation, thousands of doctors furnish countless services in connection with civilian defense, without one cent of remuneration. It would be interesting to know what other trade or profession can match this record of public service.

"And yet proposals are made to throw American medicine into the political arena, and level it off to the standards prevailing in European countries where experiments in socialized medicine have utterly failed to produce the health records and benefits to the general public which are the rule rather than the exception in the United States. Fortunately for the people of this country, such efforts seem to have failed.

"American medicine is marching ahead unselfishly and scientifically in its determination to maintain for our armed forces and the people at home the highest medical standards in the world—not for this year, or next year, but for every year."

Medical Standards

The following editorial appeared in the *Maury Democrat*, Columbia, Tennessee, and is reproduced by the kind permission of Mr. H. W. Maxwell, manager:

"MEDICAL STANDARDS

"More than 40,000 doctors and physicians have given up private careers in civilian practice so they can serve with the armed forces, where they are needed.

"More than 28,000 doctors and physicians have volunteered and are serving without pay for Selective Service Boards throughout the country.

"Hundreds of doctors and physicians serve in connection with the directing board of Procurement and Assignment Service for Physicians.

"Hundreds of doctors and physicians serve on the consultant committee of the Division of Medical Science of the National Research Council, and in the Office of Research and Development, contributing valuable time and effort.

"Consequently proposals which are being made to throw medicine into politics . . . to socialize and standardize it are repugnant to ideals of democracy.

"American medicine has been, and is, marching ahead unselfishly and scientifically in its determination to maintain for our armed forces, and for the people at home the highest medical standards in the world—not for this year, or next year, but for every year."

Meeting of the House of Delegates of the Tennessee State Medical Association

The House of Delegates of the Tennessee State Medical Association is called to meet April 11, 1943, at Nashville.

The Board of Trustees took action to cancel the scientific meeting of the state association.

The place of meeting will be Hotel Noel. Time, 10:00 A.M.

War and Social Reform

The following editorial is taken from the *New York State Journal of Medicine* for January:

"For those who still question the profound nature of the social and economic upheaval which is at the root of the present global war, the 'Beveridge Report,' a 100,000-word document compiled by Sir William Beveridge, noted English economist, will be an eye-opener. It would seem to be an im-

portant social document proposing, according to the *New York Times*,[1]

> . . . complete and compulsory state insurance against every form of personal want and insecurity, to be administered by a Minister of Social Security and applied without regard for sex, age, income, or job. . . .
>
> An automatic product of Sir William's sickness plan will be the creation of a nationalized and completely comprehensive medical service for all citizens. This would broaden the present State panel of doctors into a revolutionary unified machine covering hospital, specialist, and surgical treatment and prenatal and postnatal treatment and convalescence.

"Incidentally, the total cost is estimated at about $4,000,000,000 yearly, or $89 per capita. If adopted, it would affect the lives of 45,000,000 British people profoundly. It would naturally and automatically create a completely nationalized system of medical service.

"Basically, it proposes to extend the social security program that has been operative in Great Britain for more than twenty-five years.

> Each type of social security presents its own special problems and pitfalls. People may easily become indifferent about a job if the conditions and benefits of unemployment insurance are made more attractive than the job itself. Insurance against certain hazards, in short, sometimes increases the hazards themselves. This is the sort of question that must be raised regarding Sir William's proposals on unemployment benefits. If our future social programs are to be large-hearted, they must also be hard-headed, and they must undergo realistic analysis before they are accepted.[1]

"The report, though startling in the magnitude of its proposed cost and somewhat Utopian in its general concept and coverage, is indicative of a trend which cannot be ignored, and should not be minimized. One of the implements of social security is the practice of medicine, since illness and disability are prime causes of insecurity. Recognizing that fact, the *Journal* in 1941 commented frequently upon the progress of the New Zealand experiments in compulsory health insurance.[2] In 1942, we published a brief editorial summarizing the *Draft Interim Report* of the British medical Association, which studied 'wartime developments and their effects on the country's medical services.'[3] We pointed out the fact that there is now developing here a distinct challenge to the resourcefulness and fluidity of organized medicine.[4]

" 'We cannot hold back,' said Dr. W. G. Cottis, 'the stream of world-wide changes by standing pat. If we are to escape regimentation we must prove that we ourselves can and will meet every legitimate demand for service in the field of medicine.'[5] To this end, he proposed an extension of medical service by the State of New York in the following ways: more hospitals for the care of cancer patients; extension of laboratory facilities; provision of diagnostic clinics in general medicine; more convalescent homes; more district or county health units.

"Under the impact of war and the profound economic and social changes which follow in its train, it would indeed be surprising if proposals somewhat similar to the 'Beveridge Report' did not arise here in the course of time. We, like the English, and, earlier, the Russians, are seemingly irrevocably embarked upon the road of social reform. It is quite possible, since social reform is not wholly free from purely human frailty and error, that the control of medical practice may pass into the hands of others than physicians. The manpower question and the distribution of medical personnel may well prove to be the crucial issue which will determine at least for the duration, and possibly thereafter, the character and course of medical practice in this country.

"These issues involve many questions of individual and state's rights; they challenge the education laws of many states; they challenge the ingenuity, the patience, and the wisdom of many agencies of government, of medicine, of private enterprise of all sorts. Their proper solution would seem to call for cool hard-headedness, free debate, and a thorough understanding of the objectives sought. Issues of this sort cannot in the nature of human affairs be completely divorced from political considerations. In the minds of many physicians, politics is synonymous with obliquity and broken promises; with exploitation of minorities; with the *argumentum ad hominem*. To most politicians the physician might seem to be

a good egg but odd—definitely odd. It's all in the point of view. These differing opinions must nevertheless be somehow reconciled to a set of principles which can be made to work in the public interest.

"Since to define these principles it is necessary to know where we are going in the matter of social and economic reform, it would seem to us to be the prime obligation of those responsible for them to state clearly and as simply as possible the objectives, if they know what they are. After these are stated if not comprehensively, at least comprehensibly, it seems then the obligation of medicine to revise such of its structure as needs revision so that it may fit workably into the new scheme of things. To plunge blindly in the dark does not seem to us who are immediately and responsibly concerned with the public and private health of the nation to be a proper way to approach reform of any sort whatever. War or no war."

REFERENCES

1. New York Times, November 19, 1942.
2. New York State Journal of Medicine 41: No. 6: 553; 41: No. 19: 1912; 41: No. 20: 2007-2008.
3. New York State Journal of Medicine 42: No. 19: 1817-1818 (October 1), 1942.
4. New York State Journal of Medicine 42: No. 18: 1721 (September 15), 1942.
5. New York State Journal of Medicine 42: No. 22: 2099 ff. (November 15), 1942.

The War Participation Committee of the American Medical Association

Dr. Walter F. Donaldson, Pittsburgh, Pennsylvania, chairman of the War Participation Committee of the American Medical Association, spoke his mind before the House of Delegates of the Pennsylvania State Medical Association. It is with his permission and with the permission of the *Pennsylvania Medical Journal* that the following excerpts from the minutes are reproduced:

"Speaker Schnabel: The Chair recognizes Secretary Donaldson.

"Secretary Donaldson: Mr. Speaker, this House has just re-elected me to my twenty-fifth term as secretary, and for the first time in all those years I ask the privilege of speaking to this House of Delegates before we adjourn this morning for five minutes in any other capacity than that of secretary. If someone will make a motion to grant me that privilege, I will appreciate it.

"Dr. Hunsberger: I so move.

"The motion was seconded by Robert Devereux, Chester County.

"Speaker Schnabel: Secretary Donaldson, you are granted the privilege.

"Secretary Donaldson: I wish to speak to you as Chairman of the War Participation Committee of the American Medical Association. The House of Delegates of the American Medical Association at Atlantic City last June discharged honorably its Committee on Medical Preparedness. The Medical Society of the State of Pennsylvania and most of its component societies have similar committees. The House of Delegates at Atlantic City then created a Committee on War Participation, an advisory committee only, without any authority, but because it is only advisory, authorized to speak out in defense of the organized medical profession in all war activities no matter who conducts them. That is an important position for any committee to be placed in.

"Already organizations propose forms of emergency medical service which may lead to further encroachment upon medical practice as a private enterprise, and I want to speak to you very briefly on that point.

"It has come to a head under the topic of industrial medicine. The War Participation Committee of the American Medical Association through a subcommittee of Procurement and Assignment Service has been contacted by the War Manpower Commission, supported by the War Labor Board, the Department of Labor at Washington, and several other organizations of that type. The approach has been on the basis that the war industry workers of this country are not being safeguarded adequately and apparently may not be treated adequately by the medical profession of today.

"THE CHALLENGE

"The United States Public Health Service at Washington stands ready to step into this breach to meet these needs with doctors they will train and commission, and if we

as representatives of county and state medical societies fail to face this situation realistically, there isn't the slightest doubt in the world but that it will be met that way. Furthermore, under Civilian Defense, hospitals are to be erected where needed along the coasts of this country, as much as 150 miles inland, for the very laudable purpose of caring for evacuees from coastal cities and towns subjected to enemy bombing or worse. All of these plans show admirable foresight, but I can think also of no more effective facilities for subsequent adaptation to tax-supported, collectivistic postwar medical service than just these two projects under bureaucratic control, namely, commissioned public health doctors and government-owned and managed general hospitals.

"I would like every one of you to go back home determined that a committee on industrial health will become active, and shall turn, first of all, to the Industrial Hygiene Bureau of Pennsylvania's own State Health Department, which is well organized, very active, and very cooperative. If you want to know what the situation is in your own county, ask that bureau to make a survey of the industries in your county and you will probably be gratified to find, as we have been surprised here recently in southwestern Pennsylvania, that the war industry health situation is not nearly as bad as it is painted.

"Recently, for a combined councilor district commission meeting held in Pittsburgh, under the sponsorship of Drs. Whitehill, Walker, Sargent, and Lorenzo, contiguous district councilors and trustees, a questionnaire survey in the district was conducted through the Public Health Committee of the Pittsburgh Chamber of Commerce. We learned from forty industries, with employees ranging in number from fifteen to 1,500, that up to date none of them had experienced any failure of cooperation where they had appealed to local organizations of physicians or others for advice in prevention or for help. Their reports do not seem to be in line with those that emanate from Washington to the effect that in eight months after the Pearl Harbor raid there have been 20,000 deaths in industry in the United States and more than 2,000,000 casualties. The industries of this district making this response said: 'Seventy-five to ninety per cent of our endeavors at the present time originate in the present war. We have had no considerable increase in sickness or injuries among our employees.'

"That, of course, is a very encouraging report and is not the least bit in line with what comes out of Washington, any more than were our own findings of four years ago in line with the repeated National Health Program declaration that 'one-third of the people in the United States cannot obtain medical service when they need it.' Gentlemen, we quickly dispose of that inspired accusation and we can overcome this present situation if we promptly take it seriously.

"Success involves county medical society activity and state society activity. I mentioned the Bureau of Industrial Hygiene of our own State Health Department. You will find a physician at the head who is very responsive. The American Medical Association has its Council on Industrial Health. They have an exhibit in this hotel. I hope you will all visit it. They have sent one of their field representatives, a very intelligent doctor with years of experience in industrial medicine, into a half dozen places in Pennsylvania where we have requested it.

"Your own State Committee, I repeat, is very active.

"THE ANSWER

"Now I would like to feel that you are all going back home determined that every member of the Medical Society of the State of Pennsylvania is going to prepare to put such quality into his individual service that nobody can truthfully make the charge that good hygienic and medical services are not locally available. This means more instruction or training in the newer industrial health subjects. You need to organize or activate committees to ask for help in having your members instructed in this field.

"I want you to be cooperative always with every other organization in your county that expresses interest in health. If they turn to you, as they should, don't cast them

aside saying, 'We have no plans or committees for helping you.' Meet them all with open arms. If you do these two things and also keep your public health legislation committees alive to the health legislation that is introduced in Pennsylvania and in the Congress in 1943, then I haven't the slightest fear that when our fellow members now in military service come back home, they will find that we on the home front have defended their interests and those of the people of this commonwealth so splendidly that their return to a private professional career will closely resemble that which they left behind in our keeping."

DEATHS

Dr. M. B. Murfree, Murfreesboro; Vanderbilt University School of Medicine, Nashville, 1908; aged 62; died January 27, 1943, from injuries received in an automobile accident.

Dr. S. S. Moody, Shelbyville; Vanderbilt University School of Medicine, Nashville, 1909; aged 59; died January 19, 1943.

RESOLUTIONS

Resolutions on the Death of Dr. Jerry McFarland

On November 11, 1942, the medical profession of Lebanon and Wilson County suffered irreplaceable loss due to the death of Dr. Jerry James McFarland, Sr. Forty-nine of Doctor Jerry's seventy-one years had been devoted to the alleviation of the medical ills of Wilson County, where he was born, reared, and had practiced since his graduation from Vanderbilt Medical School in 1893.

Following in the footsteps of his father and grandfather, who were Wilson County physicians, he held a wide and successful practice, and was one of the most beloved men in this section. "If you don't want Doctor Jerry in a hurry, don't call him," is an oft-repeated expression among those whom he has served, attesting to his faithful adherence to the Hippocratic oath.

"Doctor Jerry," as he was respectfully and affectionately known, was very active in the affairs of this medical society and was active since young manhood in the Church of Christ.

Whereas, the Wilson County Medical Society recognizes its loss and feels heavy grief at the passing of this good man and associate member.

Therefore, we, the Wilson County Medical Society, do hereby express our sense of personal loss, and request that these resolutions be incorporated in the records of this society, and that copies be sent to the family of the deceased and to the Journal of the Tennessee State Medical Association.

Phillips Turner, M.D., *Secretary.*

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

William L. Phillips, First Lieutenant, Medical Corps, Centerville, Tennessee, to Station Hospital, Camp Carrabelle, Florida.

W. V. Sanford, Major, Medical Corps, Fort Bragg, North Carolina, to School of Military Government, Charlottesville, Virginia.

C. H. Avent, Captain, Medical Corps, Third Auxiliary Surgical Group, Fort Sam Houston, Texas, to A. P. O. No. 3385, c/o Postmaster, New York, New York.

Chas. M. Armstrong, Captain, Medical Corps, Miami Beach, Florida, to Station Hospital, Gowen Field, Boise, Idaho.

Mallory Harwell, Captain, Medical Corps, Souther Field, Americus, Georgia, to Station Hospital, Army Basic Flying School, Malden, Missouri.

Robert C. Robertson, Lieutenant Colonel, Medical Corps, Chattanooga, to North Sector General Hospital, A. P. O. No. 957, c/o Postmaster, San Francisco, California.

In a recent letter he says: "I now enjoy the Journal more than ever and am proud of Tennessee doctors. We have several here and frequently find the state in our patient roster."

Otis S. Warr, Jr., Captain, Medical Corps,

Lecompte, Louisiana, to Station Hospital, Camp Claiborne, Louisiana.

Tom Neal Humphrey, First Lieutenant, Medical Corps, Selmer, Tennessee, to Air Transport Command, A. P. O. No. 677, Presque Isle, Maine.

Richard Van Fletcher, Captain, Medical Corps, Chattanooga, to Station Hospital, Camp Carrabelle, Florida.

William K. Tilley, First Lieutenant, Medical Corps, Lebanon, to W. R. A. A. A., Robins Field, Station Hospital, Warner Robins, Georgia.

J. Paul Baird, Dyersburg, to Weiters Street, Walterboro, South Carolina.

C. H. Barnwell, Major, Medical Corps, Chattanooga, to Station Hospital, Camp Stoneman, Pittsburg, California.

Alvin H. Benz, Captain, Medical Corps, Chattanooga, to Station Hospital, New Orleans Staging Area, New Orleans, Louisiana.

John W. Claiborne, Major, Medical Corps, Chattanooga, to Station Hospital, Key West, Florida.

Howard T. Holden, Captain, Medical Corps, -0335822, Chattanooga, to Station Hospital A. P. O. 826, c/o Postmaster, New Orleans, Louisiana.

Herschel H. Hyatt, Captain, Medical Corps, Ducktown, to Hoff General Hospital, Santa Barbara, California.

John J. Killeffer, Captain, Medical Corps, Chattanooga, to 101 Medical Regiment Task Force, Army Post Office 502, c/o Postmaster, San Francisco, California.

William A. Stem, First Lieutenant, Medical Corps, 0-371488, Chattanooga, to 86th Fighter Squadron, 79th Fighter Group, A. P. O. 3277, c/o Postmaster, New York, New York.

Spencer Y. Bell, Lieutenant (j. g.) M. C. U. S. N. R., Knoxville, to Senior Medical Officer, Dispensary, Section Base, Inshore Patrol, Key West, Florida.

S. Ogle Jones, Pershing Point Apartments, 1428 Peachtree Street, Atlanta, Georgia, to 28 Station Hospital, Fort Bragg, North Carolina.

John A. Conroy, 183 Tremont Street, Newton, Massachusetts, to John A. Conroy, M.D., Passed Assistant Surgeon, U.S. Public Health Service (Reserve) c/o District Coast Guard Officer, Fourth Naval District, Philadelphia, Pennsylvania.

James M. Brockman, Major, Medical Corps, 77th Station Hospital, Camp Barkley, Texas, to McCloskey General Hospital, A-21, Temple, Texas.

Loyall D. Farragut, Captain, Medical Corps (U. S. A.), Bemis, to Station Hospital, Fort Jackson, South Carolina.

Julius Culpepper Brooks, Jr., First Lieutenant, Medical Corps (U. S. A.), Chattanooga, present address—59 Medical Battalion, Camp Gordon, Georgia.

James Richard Fancher, Major, Medical Corps (U. S. A.), Headquarters 7th Corps, A. P. O. 307, San Jose, California, to Jacksonville, Florida.

Frank Harris, Lieutenant Colonel, Medical Corps (U. S. A.), present address, First Replacement Depot, Camp Pickett, Virginia.

James Morris Higginbotham, Captain, Medical Corps (U. S. A.), Beaumont General Hospital, El Paso, Texas, to No. 10 Field Hospital, Camp Bowie, Texas.

Howard Karr, Lieutenant, Medical Corps (U. S. N. R.), formerly of Chattanooga, present address, Norfolk Naval Hospital, Portsmouth, Virginia.

Richard H. Mellen, Captain, Medical Corps (U. S. A.), Chattanooga, present address, Station Hospital, Camp Carson, Colorado Springs, Colorado.

Chas. Thomas Read, First Lieutenant, Medical Corps (U. S. A.), Chattanooga, present address, Camp Shelby, Mississippi.

Edward T. Newell, Jr., Captain, Medical Corps (U. S. A.), Chattanooga, present address, 118 General Hospital, U. S. A., A. P. O. 927, c/o Postmaster, San Francisco, California.

Robert L. Patterson, Lieutenant, Medical Corps (U. S. N. R.), Chattanooga, present address, Norfolk Naval Hospital, Portsmouth, Virginia.

Gilbert Madison Roberts, Jr., Lieutenant, Medical Corps (U. S. N. R.), Naval Procurement Department, New Orleans, Louisiana, to Naval Base Hospital, Department of Urology, Memphis, Tennessee.

O. L. Von Canon, Captain, Medical Corps (U. S. A.), Chattanooga, to Station Hospital, Camp Breckenridge, Kentucky.

Alex Steward, Major, Medical Corps (U. S. A.), Chattanooga, to Walter Reed Hospital, Washington, D. C.

Fay B. Murphey, First Lieutenant, Medical Corps (U. S. A.), Fourth Corps Headquarters, Atlanta, Georgia, to Camp Shelby, Mississippi.

NEWS NOTES AND COMMENTS

Announcement

Refresher Course in Laryngology, Rhinology, and Otology March 22 to 27, inclusive, 1943. University of Illinois College of Medicine.

To meet the needs of ear, nose, and throat specialists who, under existing conditions, are able to devote only a brief period to postgraduate review study, this didactic and clinical course has been arranged. Registration is limited. The fee for the complete course is fifty dollars. In letter requesting application for registration, state school and year of graduation, also details concerning specialty training and experience.

Address Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Illinois.

The American Foundation for Tropical Medicine, Inc.

Reading Notice of Annual Meeting

The annual meeting of members of The American Foundation for Tropical Medicine, Inc., took place Tuesday, January 19, at the University Club in New York City. A dinner attended by leading authorities in the field of tropical medicine and by representatives of business followed the meeting.

Guest speakers at the dinner were Major General James C. Magee, Surgeon General, United States Army, Captain Erik G. Hakansson of the Bureau of Medicine and Surgery, United States Navy, Captain Rolla E. Dyer, Director of the National Institute of Health, United States Public Health Service, and Mr. Clarence J. Stiker, representative of the State Department.

The membership meeting approved plans submitted by the Executive Committee to secure $100,000 in gifts to provide for expansion of activities in the current year. The foundation, established by the American Academy of Tropical Medicine, was incorporated in New York state in 1940. It has been an agency through which individuals and business concerns with interests in tropical areas can aid in strengthening facilities in this country for study and research in tropical diseases. The activity will be along the lines originally established for the foundation, namely:

1. Support of graduate departments in tropical medicine at American medical schools.
2. Grants for fellowships in tropical medicine.
3. Financial aid for exchange of faculty.
4. Support of technical journals in the field.
5. Support of research by grants in aid.

At the annual meeting the executive director's report on activities for the previous year was given by Dr. J. A. Curran, president and dean of the Long Island College of Medicine, who succeeded Lieutenant Colonel Thomas T. Mackie of New York City as director during 1942. Lieutenant Colonel Mackie, executive officer, Division of Parasitology and Tropical Medicine, Army Medical School, Army Medical Center, was elected president of the foundation.

Other officers elected were Dr. Willard C. Rappleye, vice-president, Mr. W. W. Lancaster, treasurer, and Mr. Alfred R. Crawford, secretary.

Members of the board of directors elected at the annual meeting were Mr. William B. Bell, Mr. Crawford, Dr. Curran, Dr. Edward C. Ernst, Dr. George Harrop, Dr. Walter A. Jamieson, Dr. Theodore G. Klumpp, Dr. H. W. Kostmayer, Mr. Lancaster, Mr. William Loeb, Lieutenant Colonel Mackie, Dr. Henry E. Meleney, Mr. George W. Merck, Mr. Carleton Palmer, Colonel Harry Plotz, Dr. Rappleye, Dr. Alfred C. Reed, Dr. George C. Shattuck, Colonel James S. Simmons, and Dr. Robert G. Sproul.

An executive committee composed of Doctor Curran, Doctor Klumpp, Lieutenant Colonel Mackie, Doctor Meleney, Doctor Rappleye, Mr. Lancaster, and Mr. Crawford

was named by the directors to serve for the current year.

The directors also elected a medical committee made up of Colonel Charles F. Craig, Dr. Ernest Carroll Faust, Lieutenant Colonel Mackie, Doctor Meleney, Doctor Reed, Doctor Shattuck, and Colonel Joseph F. Siler.

In addition to those already named, the following were elected to membership in the foundation: General Hugh S. Cumming, Lieutenant Colonel Albert R. Dreisbach, General George C. Dunham, Dr. Lester J. Evans, Dr. Edward G. Huber, Dr. Edward H. Hume, Dr. Maxwell E. Lapham, and Dr. Edward I. Salisbury.

Other present members include Dr. George Bachman, Dr. Nicholas Murray Butler, Mr. W. B. DeGolia, Mr. David I. Mackie, Jr., Major General Magee, Rear Admiral Ross T. McIntire, Mr. Joseph W. Montgomery, Dr. Thomas W. Parran, and Mr. Leo S. Rowe.

Rules Governing the Award of "The Foundation Prize" of the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons

1. The award which shall be known as "The Foundation Prize" shall consist of $150.00.

2. Eligible contestants shall include only (a) interns, residents, or graduate students in obstetrics, gynecology, or abdominal surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching obstetrics, gynecology, or abdominal surgery.

3. Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the secretary of the association together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant.

4. Manuscripts must be limited to 5,000 words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis.

5. The successful thesis shall become the property of the association, but this provision shall in no way interfere with publication of the communication in the Journal of the author's choice. Unsuccessful contributions will be returned promptly to their authors.

6. Three copies of all manuscripts and illustrations entered in a given year must be in the hands of the secretary before June first.

7. The award will be made at the annual meeting of the association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the association. The successful contestant must meet all expenses incident to this presentation.

8. The president of the association shall annually appoint a committee on award, which, under its own regulations, shall determine the successful contestant and shall inform the secretary of his name and address at least two weeks before the annual meeting.

Jas. R. Bloss, M.D., *Secretary.*
418 Eleventh Street, Huntington, W. Va.

The Research Council on Problems of Alcohol — Announcement of a $1,000 Award for Outstanding Research on Alcoholism During 1943

1. The research for which the award will be granted must contribute new knowledge, in some branch of medicine, biology, or sociology, important to the understanding or prevention or treatment of alcoholism.

2. Any scientist in the United States, Canada, or Latin America is eligible for the award.

3. The project may have been inaugurated at any time in the past or during the year 1943, provided (a) that a substantial part of the work be carried on during the year 1943, (b) that it be developed to a point at which significant conclusions are possible before the end of the year, and (c) that a report on the work has not been previously announced and described before a scientific body or previously published.

4. It is desirable, but not necessary, that those planning to work for the award send to the council before March 1, 1943, a state-

ment of such intention. If the council receives such information, it can be helpful in the prevention of undesirable duplication of effort. If a research project is conceived and inaugurated later in the year 1943, a statement of intention may be sent to the council at a later date.

5. A report on the work and resulting conclusions must be submitted to the Research Council on Problems of Alcohol on or before February 15, 1944. The council will provide an outline for use in the preparation of reports.

6. The award will be in cash, and will be given to an individual scientist whose work is judged sufficiently outstanding and significant to merit the award.

7. The Committee of Award will consist of five persons—an officer of the American Association for the Advancement of Science and four representatives of the Scientific Committee of the Research Council on Problems of Alcohol.

8. If the committee is not convinced of the outstanding merit of the research done during 1943, as described in reports submitted, it may, at its discretion, postpone the award until another year, or until such time as work of such merit has been performed.

The council will send on request, to any scientist, an outline of basic policies governing its research program, lists of council studies (completed, under way, and contemplated), and information regarding the studies of other agencies.

Scientists planning to do research in connection with the award may send a statement of intention to the Director, the Research Council on Problems of Alcohol, Pondfield Road West, Bronxville, New York.

Social Hygiene Takes Battle Stations

Social Hygiene Day, sponsored annually by the American Social Hygiene Association, was observed on February 3, 1943. Communities throughout the United States and its territories held local meetings where the American public could gather to discuss the problem of venereal disease control during the war.

Stressing the urgent wartime need for a vigorous offensive against the venereal diseases, the association's theme for the 1943 campaign will be "Social Hygiene Takes Battle Stations."

Public health and welfare organizations, schools, churches, parent-teacher associations, women's clubs, and men's groups are planning Social Hygiene Day meetings. For further information and helpful program materials, write to the American Social Hygiene Association, 1790 Broadway, New York, New York.

War Production Board Order Affects Vitamin Capsules

To conserve vitamin A supplies during wartime, W. P. B. order L-40 limits the content of capsules to 5,000 vitamin A units.

In compliance with this order, capsules of Mead's Oleum Percomorphum fifty per cent with Viosterol now contain eighty-three milligrams of oil, equivalent to 5,000 vitamin A units and 700 vitamin D units per capsule.

The new size capsule is now supplied in boxes containing forty-eight and 192 capsules—about twice the number of capsules without increase in price.

MEDICAL SOCIETIES

Anderson-Campbell Counties:

Dr. H. C. Chance, Cumberland Gap, President.

Dr. J. P. Lindsay, Lafollette, Vice-President.

Dr. J. S. Hall, Clinton, Secretary.

Davidson County:

January 12: "Experiences in the Practice of Surgery in India and Indo-China," by Dr. Richard E. Strain.

January 19: "Symposium on Gonadal Influences Over Genital Carcinoma," by Drs. P. G. Morrissey, Carl Adams, C. S. McMurray, and H. S. Shoulders. General discussion.

January 26: "Industrial Medical Program at the Vultee Aircraft Plant," by Dr. Carrington Harrison.

February 2: Dr. M. Don Clawson, guest speaker. Doctor Clawson has recently returned from the Near East where he had been sent on a mission by the Surgeon General's office and the American Dental Association to study the medical and dental needs of the British and American forces stationed there. Doctor Clawson was formerly head of the Dental Department at the University of Beirut, Syria, and on his recent mission he visited Iraq, Iran, Russia, and was with the British and American forces in Egypt just before their drive across Libya.

Dyer, Lake, and Crockett Counties:

Dr. J. G. Price, Dyersburg, President.

Dr. C. A. Turner, Dyersburg, Vice-President.

Dr. R. W. Griffin, Tiptonville, Vice-President.

Dr. W. H. Stallings, Friendship, Vice-President.

Dr. J. B. Cochran, Dyersburg, Secretary.

Greene County:

The Greene County Medical Society held its regular meeting on February 2.

A paper was presented by Dr. C. B. Laughlin, entitled, "Failure of Coronary Circulation."

(Signed) J. E. KITE, JR., M.D., *Secretary.*

Grundy County:

Dr. U. B. Bowden, Pelham, President.

Dr. O. H. Clements, Palmer, Vice-President.

Dr. T. F. Taylor, Monteagle, Secretary.

Hamblen County:

Dr. W. E. Howell, Morristown, President.

Dr. B. C. Weesner, Morristown, Vice-President.

Dr. Y. A. Jackson, Morristown, Secretary-Treasurer.

Hamilton County:

Dr. J. B. Swafford, President.

Dr. J. Marsh Frere, President-elect.

Dr. Jesse J. Armstrong, Secretary.

Knox County:

Dr. H. J. Bolin, Mascot, President.

Dr. Dan R. Thomas, Knoxville, Vice-President.

Dr. R. B. Wood, Knoxville, Secretary-Treasurer.

February 2: "Aviation Medicine," by Dr. Roy Fisher.

"Enlargement of the Liver," by Dr. A. R. McCullough. Discussion by Dr. E. R. Zemp.

Putnam County:

Dr. W. A. Howard, Cookeville, President.

Dr. T. M. Crain, Monterey, Vice-President.

Dr. Thurman Shipley, Cookeville, Secretary.

Shelby County:

The newly-elected officers of the Shelby County Medical Society are as follows:

Dr. W. L. Rucks, President.

Dr. E. G. Kelly, President-elect.

Dr. B. F. Hardin, Vice-President.

Dr. A. F. Cooper, Secretary.

Dr. C. V. Croswell, Treasurer.

Sullivan-Johnson Counties:

Dr. R. B. Wood, Knoxville, presented a paper on January 7, entitled, "Heart Disease."

ABSTRACTS OF CURRENT LITERATURE

ANESTHESIA

By HUGH BARR, M.D.
Medical Arts Building, Nashville

Continuous Caudal Anesthesia During Labor and Delivery. Hingson and Edwards, Anesthesia and Analgesia, November-December, 1942.

A single injection of a local anesthetic has been extended to include the continuous method of caudal anesthesia not only for delivery but for the distressing and exhaustive labor pains. The authors use one to one and one-half per cent solution of metycaine. Sixty-five cases were delivered by this method. The average dosage for these cases was two and one-half grams.

This extradural injection around the nerve trunk relieves pain within five to ten minutes with no interruption of labor. The perineal musculature is

completely relaxed and there is little resistance to the advancing head.

There were various complications which included difficulty in inserting needle, unilateral anesthesia, and temporary head and backache. There were very few postdelivery complications. From the authors experience this method of anesthesia is a very safe and successful way to relieve the discomfort of delivery.

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

Continuous Caudal Analgesia in Obstetrics. Robert A. Hingson and Waldo B. Edwards Journal American Medical Association, Vol. 121, No. 4, January 22, 1943, page 225.

Continuous caudal anesthesia for the relief of pain during childbirth was first used by the above authors in a series of 589 deliveries at the United States Public Health Service Marine Hospital at Stapleton on Staten Island, New York.

Only eleven per cent obtained unsatisfactory results necessitating either discontinuance of the method or supplementary anesthesia.

The average length of time the analgesia was continued was six and one-half hours. The shortest time was thirty-five minutes and the longest thirty-three hours.

The analgesic agent recommended was 1.5 per cent Metycaine in isotonic solution of sodium chloride, two grams of the drug diluted in 125 cubic centimeters of a saline solution. Thirty cubic centimeters of this solution is slowly injected in the extradural space of the sacral canal by a special apparatus designed by the authors. Supplementary injections depended on the rate of metabolism of the drug by the individual patient. Twenty cubic centimeters of additional solution can be injected every thirty or forty minutes to keep the parturient comfortable for the entire course of labor.

Some 589 women have been delivered of babies by this method without maternal mortality and with only three instances in which infants died; these without reference to the method of analgesia employed.

Continuous Caudal Analgesia in Obstetrics. Thomas A. Gready, Jr., and H. Close Hesseltine. Journal American Medical Association, Vol. 121, No. 4, January 22, 1943, page 229.

The above authors believe that in carefully supervised and selected cases continuous caudal anesthesia is a valuable addition in the field of obstetrics. But also believe there are some dangers and contraindications.

They used the same technique originally designed by Edwards and Hingson in twenty cases. Fourteen, or seventy per cent, were completely successful. Three were satisfactory but not ideal, and three were classified as failures.

Continuous caudal anesthesia was used during labor and delivery in fourteen cases. Ten were completely satisfactory; three wese termed satisfactory in that partial relief was obtained and one was a failure.

In analyzing the failures; there were good anesthesia in one patient but she went into vascular collapse following the injection. The exact cause of failure in the other cases was difficult to determine. Possibly a technical difficulty or an anatomic variation.

Gready and Hesseltine believe that continuous caudal anesthesia has certain advantages.

1. It is a useful form of nerve block anesthesia when a general anesthetic is contraindicated as in pulmonary tuberculosis or an upper respiratory infection.
2. Narcotics and sedatives are eliminated during the course of labor and delivery.
3. The patients are calm, quiet, relaxed, and rational.

The important disadvantages and contraindications:

1. The greatest danger seems to be that of injecting the drug into the subarachnoid space. A failure to recognize this situation would be extremely hazardous, if not fatal.
2. There is loss of the subjective pain element as an aid to following the progress of labor.
3. It is not a time saving procedure since a skilled person must insert the needle and inject the medication at intervals of thirty minutes or longer. This requires the constant attention of a physician.
4. It prolongs the second stage of labor and increases the incident of operative delivery since the patient has no urge to bear down.
5. While the type of anesthesia has the advantage of providing a contracting uterus for normal labor and third stage, it is not the procedure of choice when a difficult forceps rotation or version is necessary, since here almost complete relaxation is imperative.
6. The procedure seems to be exclusively for hospital usage because of the dangers of complications.

As will be observed by careful reading of the articles, the technique is one which demands the competent art of the anesthetist especially trained in obstetrical anesthesia.

The method should be used only in hospitals in which there are available the services of persons trained in the administration of the analgesia and obstetricians competent to conduct a delivery with the scientific considerations and finesse associated with the special practice of the obstetric art.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Ocular Conditions Common in India and Their Local Treatment with Sulfanilamide. S. Sanyal and M. N. Maitra. American Journal of Ophthalmology, December, 1942.

Sulfanilamide ointment was used in over five hundred cases of keratoconjunctivitis with adenitis as found in India. It was found to be beneficial, not only in cases of acute keratitis, but also in those with pannus, interstitial keratitis of both the vascular and avascular type, and dacryocystitis. It was also found to be beneficial in cases of post-operative sepsis and in certain noninflammatory conditions such as xerosis and leukoma. Because of the effect of the drug in the noninfective as well as in the infective conditions, the study was undertaken for determination of its effect upon the normal conjunctiva and cornea and on incised wounds of the cornea. In the conjunctiva it induced proliferation of the epithelium, infiltration of the subepithelial cells, dilatation of the blood vessels, and edema. In the cornea there were hyperplasia of the epithelium, change in the shape and size of the corneal corpuscles, and cellular infiltration at the periphery. Thus, even if sulfanilamide had no bacteriostatic property, it would ably defend the tissues in its role as a chemical excitant. This explains the drug's effect in such conditions as xerosis and leukoma. Experiments now being conducted seem to indicate that addition of intravenous administration is beneficial in conditions of the conjunctiva, but is of doubtful value in corneal lesions.

ROENTGENOLOGY

By J. Marsh Frere, M.D.
Newell and Newell Sanitarium, Chattanooga

An Ocular Test for Sensitivity to Diodrast Prior to Intravenous Urography. Vincent W. Archer, M.D., and Ivor D. Harris, M.D. Roentgenology, Vol. 48, No. 6, page 763, December, 1942.

Recently several reports of deaths following intravenous injection of diodrast have been made by Crane, Tachot, Dolan, Goldburgh and Baer, and others. Numerous preliminary tests for sensitivity have been tried, all of which have failed to give complete satisfaction. An ocular test is described which has proved very accurate, quick, and simple, and lacking complications in its use in over six hundred cases.

Technique

The technique is simple:

1. Both eyes are first examined for comparison.
2. A drop of the dye is then placed directly on the conjunctiva.
3. The patient then closes his eyes, as in sleep, for one and a half minutes.
4. Both eyes are examined (daylight preferred) at one and one-half and three and one-half minutes after instillation.
5. The reacting eye is directly compared with the control.

Positive Reactions.—The amount of injection of the vessels of the sclera and conjunctiva is the criterion of the test, roughly the reactions are divided into three types.

Type I.—Minimal injection of conjunctiva only. In these cases injection of the dye may have no effect, or the patient states, upon questioning, that he has a hot flash and some nausea.

Type II.—Moderate injection of conjunctival and scleral vessels. These patients react to intravenous injection with nausea, vomiting, vasomotor dilation (a "faint feeling"), and occasionally generalized pruritus, urticaria, and some slight swelling of the upper respiratory membranes. They respond readily to administration of adrenalin. The reactions are always temporary with no sequelae.

Type III.—Marked injection of sclerae and conjunctivae. The vessels are engorged from the iris to the periphery. This absolutely contraindicates the intravenous injection of the dye. Such a diagnostic procedure is not justified if a fatality may result. The dangerous reactions are vasomotor and respiratory collapse, laryngeal edema, severe asthma, generalized urticaria, pruritus, and even dermatitis. The last named has been a delayed reaction.

When in doubt between Types II or III, it is better to repeat the test several hours later or forego the examination.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

Eight-Year Results of Castration for Cancer of the Prostate. Alexander Randall. The Journal of Urology, December, 1942.

Schinzinger, as early as 1889, suggested bilateral oophorectomy in the treatment of carcinoma of the breast. Several other writers have reported their observations on this method of treatment since that date.

In 1933 the author became interested in these reports from the foreign clinics, and decided to observe the results obtained in the male with carcinoma of the prostate after bilateral orchidectomy.

This report is the observation of five cases of carcinoma of the prostate operated on in 1933, 1934, and 1935. They all had urinary retention and the usual signs and symptoms of prostatic carcinoma. All had prostatic resections and bilateral orchidectomies, and all had pathological

reports of the prostatic tissue. One case had metastases to the pelvis proven by X-ray. Four of the cases lived seventeen months, three and one-half years, forty-three days, and eight months, respectively, after operation. It was difficult to ascertain the definite clinical benefit in these cases obtained from orchidectomy. However, two of them showed improvement; it could be attributed to the drainage obtained from the resection.

The fifth case in this series is still alive, six and one-half years after the resection and orchidectomy. In April, 1941, he had metastases to his dorso-lumbar spine with pain in the back and right hip. The pain was relieved by novacaine injections, and the patient given a course of X-ray therapy and stilbestrol. At present his appetite is normal, his weight constant, and his general condition is good.

The present method of handling these cases of prostatic carcinoma may prove more satisfactory than the efforts even eight or nine years ago.

BOOK REVIEW

Food Charts: Foods as Sources of the Dietary Essentials Prepared by a Joint Committee of the Council on Foods and Nutrition of the American Medical Association and of the Food and Nutrition Board of the National Research Council. Paper. Price, 10 cents. (Quantity prices on request.) 20 pp. American Medical Association, Chicago, 1942.

Current interest in nutrition is at a high level, and the subject merits all the attention which it is receiving. Information about the composition of foods now is on a quantitative basis. A forceful presentation of some facts about foods as sources of the dietary essentials is provided by the present illustrated essay, which has been prepared by a joint committee of the Council on Foods and Nutrition of the American Medical Association and of the Food and Nutrition Board of the National Research Council. There are eight charts showing the contribution that individual foods may make with respect to the needs for protein, calcium, iron, vitamin A, thiamin, riboflavin, nicotinic acid, and ascorbic acid. A feature of these graphic presentations is that the values are presented in terms of the proportion of the daily requirements which are supplied by typical servings of each food. The requirements selected are the Recommended Daily Allowances of the Food and Nutrition Board of the National Research Council. The charts show, for example, that a serving of about three and one-half ounces of cooked greens (beet, kale, chard, mustard, spinach, turnip) will supply more than 10,000 International units of pro-vitamin A, the daily allowance of which is 5,000 International units. An orange of average size, or half a grapefruit, or a serving of fresh strawberries will supply the seventy-five milligrams of ascorbic acid which is considered to be a desirable intake of vitamin C. It is interesting to note the unique value of milk as a source of calcium, protein, and riboflavin. There is a descriptive paragraph or two about each of the charts. In addition, the booklet reproduces the table of Recommended Dietary Allowances and also provides the values of Minimum Dietary Requirements developed by the Food and Drug Administration for purposes of labeling special dietary foods. This little essay thus provides considerable factual information about foods as sources of the dietary essentials.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

• Grade "A" Pasteurized • Homogenized • Soft Curd • Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

Send It to

LILY WHITE LAUNDRY

6-3118

Order Reprints From

McQUIDDY PRINTING COMPANY

Nashville, Tennessee

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

President-Elect—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.

Vice-President for West Tennessee—Dr. F. Douglas, Dyer.

Vice-President for Middle Tennessee—Dr. S. J. Fentress, Goodlettsville.

Vice-President for East Tennessee—Dr. B. L. Jacobs, Chattanooga.

Secretary-Editor—Dr. H. H. Shoulders.

Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1943).

Dr. E. R. Zemp, Walnut Street, Knoxville.

Dr. B. L. Jacobs, Provident Building, Chattanooga (1943).

Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).

Dr. Hiram A. Laws, Jr., James Building, Chattanooga.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Geo. W. Brasher, Jackson.*
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1943).

Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennessee (1943).

*Deceased.

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	W. H. Avery, Shelbyville	M. L. Connell, Wartrace	J. N. Burch, Shelbyville
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley	M. S. Trewhitt, Cleveland**	C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport	W. C. Ruble, Jr., Newport**	J. E. Hampton, Newport
Cumberland	W S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	I. R. Storie, Jamestown	C. A. Collins, Wilder	J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	J. P. Moon, Winchester
Gibson	J. O. Barker, Trenton**	C. W. Davis, Humboldt	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	A. F. Paschall, Puryear	Elroy Scruggs, Paris	R. Graham Fish, Paris
Hickman	C. V. Stephenson, Centerville*	L. F. Prichard, Only	W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S Joplin, Petersburg
Loudon	J. R. Watkins, Loudon	Avery Leeper, Lenoir City**	W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison	Hunter Steadman, Henderson	Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury	Wm. N. Cook, Columbia**	O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	R. M. Workman, Clarksville	M. L. Shelby, Clarksville	Jack Ross, Clarksville
Obion			D. S. Latimer, Union City
Overton	W M. Breeding, Livingston		A B Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood	W. W. Hill, Harriman	L. A. Killeffer, Harriman**
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	J. C. Kelton, Lascassas	Lois Kennedy, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier	C. P. Wilson, Sevierville	R. A. Broady, Sevierville	O. H. Yarberry, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			B. H. Warren, Gallatin**
Tipton	S Hurt, Covington	H. S. Rule Covington J. J. Fleming, Atoka	N. L. Hyatt, Covington**
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	Paul W. Wilson, Dresden**
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. H. Tilley, Lebanon	J. R. Doak, Watertown	Phil Turner, Lebanon

*Deceased. ** In service.

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN INTERNAL MEDICINE

Dr. J. O. Manier, Nashville
Dr. L. W. Edwards, Nashville
Dr. Franklin B. Bogart, Chattanooga**
Dr. A. M. Patterson, Chattanooga
Dr. R. B. Wood, Knoxville
Dr. E. G. Wood, Knoxville
Dr. W. L. Williamson, Memphis
Dr. J. L. McGehee, Memphis

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville
Dr. A. H. Lancaster, Knoxville (1945)**
Dr. A. F. Cooper, Memphis (1944)
Dr. A. M. Patterson, Chattanooga (1943)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. J. L. Hamilton, Chattanooga (1944)**
Dr. R. R. Crowe, Nashville (1943)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Kee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1943)
Dr. John B. Steele, Chattanooga (1943)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1943)
Dr. T. R. Ray, Shelbyville (1943)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. J. B. Stanford, *ex officio*, Memphis

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1943)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1943)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1943)
Dr. J. M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. H. B. Gotten, Memphis (1944)**
Dr. D. W. Smith, Nashville (1943)

COMMITTEE ON MEMOIRS

Dr. J. P. Gilbert, Chairman, Nashville (1944)*
Dr. James O. Walker, Franklin (1945)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1943)
Dr. J. L. Hankins, Johnson City (1943)

*Deceased. **In service.

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. W. O. Tirrill, Jr., Nashville (1944)**
Dr. J. B. Fitts, Chattanooga (1944)
Dr. Thos. B. Drinnen, Knoxville (1943)**
Dr. C. W. Friberg, Johnson City (1943)
Dr. Paul Warner, Nashville (1943)**

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. Jack Chesney, Knoxville (1943)**

COMMITTEE ON CANCER

Dr. Ralph Monger, Chairman, Knoxville (1943)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. W. J. Sheridan, Chattanooga (1944)**
Dr. C. H. Heacock, Memphis (1944)
Dr. Howard King, Nashville (1943)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. R. C. Robertson, Chattanooga (1944)**
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1943)
Dr. Robert F. Patterson, Knoxville (1943)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. E. L. Rippy, Nashville (1943)**

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. Van Fletcher, Chattanooga (1945)**
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Troy P. Bagwell, Knoxville (1943)

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatric Society—
President—Dr. Frazier Binns, Nashville**
Vice-President—Dr. O. L. Von Canon, Chattanooga**
Secretary—Dr. Gilbert Eblen, Knoxville

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland**
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis
Vice-President—Dr. Franklin B. Bogart, Chattanooga**
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

BOSTON
MAY 20 1943
DICAL LIBRARY

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE
Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 3

MARCH, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

DIETS IN DERMATOLOGICAL CONDITIONS, Robert N. Buchanan, Jr., M.D.; Howard King, M.D.; C. M. Hamilton, M.D., Nashville 89
HYPERPARATHYROIDISM, N. S. Shofner, M.D.; E. H. Barksdale, M.D.; Eugene M. Regen, M.D., Nashville 97
EDITORIAL 111
DEATHS 113
RESOLUTIONS 114
NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE 115
NEWS NOTES AND COMMENTS 116
WOMAN'S AUXILIARY 119
MEDICAL SOCIETIES 120
OTHER MEDICAL SOCIETIES 121
ABSTRACTS OF CURRENT LITERATURE 121
INDEX TO ADVERTISERS XXIII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

Exigency of War

OLEUM PERCOMORPHUM fifty per cent is now known as Oleum Percomorphum fifty per cent with Viosterol. This product consists of the liver oils of percomorph fishes, viosterol, and fish liver oils, a source of vitamins A and D in which not less than fifty per cent of the vitamin content is derived from the liver oils of percomorph fishes (principally Xiphias gladius, Pneumatophorus diego, Thunnus thynnus, Stereolepis gigas, and closely allied species).

In compliance with War Production Board Order L-40, to conserve vitamin A supplies during wartime, capsules of Mead's Oleum Percomorphum fifty per cent with Viosterol now contain eighty-three milligrams of oil, equivalent to 5,000 vitamin A units and 700 vitamin D units per capsule.

The new size capsule is now supplied in boxes containing forty-eight and 192 capsules—about twice the number of capsules without increase in price to the patient.

Contrary to rumors, the potency remains the same; namely, 60,000 vitamin A units and 8,500 vitamin D units per gram

MEAD JOHNSON & CO., EVANSVILLE, IND., U.S.A.

Called Meeting
Sunday, April 11

HOUSE OF DELEGATES
Tennessee State Medical Association

Noel Hotel
Nashville

*Wyeth's**

PHOSPHALJEL*

ALUMINUM PHOSPHATE GEL



Contains 4% Aluminum Phosphate.
Supplied in 12 fluidounce bottles.

* REG. U. S. PAT. OFF.

Special Medication for Peptic Ulcer

JOHN WYETH & BROTHER, INC., PHILADELPHIA, PENNSYLVANIA

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M. HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI MARCH, 1943 No. 3

DIETS IN DERMATOLOGICAL CONDITIONS*

ROBERT N. BUCHANAN, JR., M.D., HOWARD KING, M.D., C. M. HAMILTON, M.D., Nashville

Diet is overestimated as an etiologic factor in skin diseases. Most patients think that all skin lesions are due to food idiosyncrasy or to too much acid. Patients seem to have the idea that strawberries, tomatoes, and oranges are the most frequent offenders and that these foods can be responsible for all the "breaking outs" from secondary syphilis, leukemia cutis, and so forth to the most superficial contact dermatoses. Unfortunately, in this idea many physicians concur. The foods usually regarded as causing "too much acid," as grapefruit, oranges, and so forth, as a matter of fact, burn to an alkaline ash, and if there is a trend in either direction, they tend to alkalinize the system while the fats and proteins, which are ketogenic, and capable of producing acidosis, pass by without incrimination. It is well that these latter foods are not suspected because if patients understood metabolism so well, they would put themselves on more rigid dietary restriction than they now do and thus further injure themselves by self-denial of essential foods. It is doubtful if there is a single skin disease which has not at one time or another been treated by a diet of one sort or another—high protein, low protein, high carbohydrate, low carbohydrate, and vitamins ad infinitum, or any combination of these. In the majority of the trials, the results have been disappointing, especially where there has been restriction.

The fact should be emphasized that there is no such thing as an individual diet for each dermatosis. We do not wish to state that diets are of no value in the treatment of skin disease, but rather wish to stress that many skin lesions commonly blamed on foods are not related to food at all, and limitation of diet not only fails to benefit, but actually may do harm. The earliest recognizable clinical manifestations of many of the vitamin deficiencies are in the skin so that a more liberal diet rather than restriction is necessary. The part which diet plays in correcting underlying malnutrition may have an indirect as well as a direct effect on the dermatosis present. There are certain skin diseases in which nutritional therapy is an important part if not the basis for the entire management. Restriction in diet is of value in those cases where specific sensitization to certain foods exists as in urticaria, eczema, and perhaps certain cases of erythema multiforme. At times, one may wish to alter body physiology and biologic reactions as accomplished by Gerson's diet in the treatment of lupus vulgaris. In most skin conditions the normal diet is a rational foundation and safe guide.

There is no specific treatment for the

*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1942.

various forms of cutaneous tuberculosis, but in addition to fresh air, rest, sunlight, and the employment of physical agents, a liberal vitamin-rich diet is recommended, and in recent years, the so-called Gerson or Hermansdorfer salt-free diet has become part of the standard program in some skin tuberculosis sanitariums. This is not a specific remedy, but Blumenthal and Funk[1] state that it produces results which surpass any other method of therapy.

In 1932 Urbach[2] described certain skin lesions in association with diabetes. These appear as enlarging, shiny, waxy, faintly purplish, irregular patches, usually occurring on the anterior surfaces of the shins, although at times other areas on the lower extremities may be the site of the lesions. He recommended for this a diet relatively rich in carbohydrate and poor in fat. Modern thought covering the dietary treatment of this condition resolves itself into management of the diabetes with especial emphasis on maintaining the blood lipoids at normal levels.

The role of diet in the production and treatment of acne vulgaris varies from completely ignoring it, and therefore regarding it as of no importance, to the other extreme of considering diet as the most important factor in its cause and treatment. About twenty-five years ago Schwartz[3] and his associates reported borderline hyperglycemia in about half the cases of acne vulgaris, and in 1923 McGlasson[4] maintained that acne is a condition in which hyperglycemia is an almost constant factor. For the next few years many acne patients were treated by a low carbohydrate diet, but the results were disappointing, and it was not long before dissenting comments began to appear.[5, 6] The results of treatment were unsatisfactory, and the findings of hyperglycemia could not be confirmed. In 1933 Wise and Sulzburger[7] made this statement, "While clinical experience tends to show that a diet high in carbohydrates and sweets seems to make some acne cases worse, there is not an iota of scientific evidence that there is any disturbance of carbohydrate metabolism in acne." And by 1936 high carbohydrate diets were being used and apparently with some success.[8] The present fad is a low-fat diet as advocated mainly by Sutton,[9] and this is the one we use. It is accepted that in acne there is an overactivity of the sebaceous glands, so that it seems reasonable to attempt to decrease the amount of oily material secreted by limited fat intake. Sutton maintains that acne is a metabolic disease depending on an imbalance between the dietary intake of lipoids and or lipochrome substances and the patient's capacity for metabolizing them. He attempts to influence this imbalance by (1) low-fat diet, (2) the administration of thyroid substance, which we know can lower blood cholesterol, and (3) the mechanical evacuation of lipoid deposits from the skin. He gives thyroid substance to all his patients, also places them on a diet, eliminating milk, cream, ice cream, butter, butter substitutes, cheese, except cottage cheese which is allowed, lard, Crisco, cooking oils, shortened foods as piecrust, biscuits, crackers, and so forth, fried food (potato chips), pork, ham, bacon, sausage, chocolate and cocoa, nuts, peanut butter, cod-liver oil, vitamin A concentrate, cream soup, gravy, codfish, Spanish mackerel, smoked herring, shad, canned fish, salmon, tuna, sardines, mutton, brains, yolk of eggs, oatmeal, carrots, pumpkin, sweet potatoes, spinach, and not over two oranges a day. The foods which are sources of vitamin A are restricted because he never has seen acne in a patient with vitamin A deficiency. We do not forbid the lipochrome foods. We do not believe that diet alone or diet and thyroid will control acne, but do believe that a low-fat diet is of some value as an adjuvant in therapy. We can change the statement of Wise and Sulzburger so that it reads, "While clinical experience tends to show that a diet low in fat tends to help some acne patients, there is not an iota of scientific evidence that there is any disturbance of fat metabolism."

Similar dietary treatment has been employed in the treatment of seborrheic dermatitis involving scalp, axillae, and groins.

In the treatment of psoriasis, too, a great variety of diets have been used with results that have been disappointing and inconclu-

sive. Shamberg and his coworkers recommend a low-protein diet, and Becker limits proteins to some extent, but not as much as Shamberg recommends.[10] Within the past few years some evidence indicates that psoriasis is due to abnormal lipoid metabolism. Some investigators report hypercholestermia,[11] others hypocholestermia.[12] Madden[13] reports that a low-fat diet is of definite benefit in most cases. Sixty-eight per cent of psoriasis yet did not find abnormal cholesterol levels. Psoriasis has also been treated by the administration of large doses of vitamin D, even up to 300,000 to 400,000 units per day, but the results were disappointing.[14] Vitamin C has also been used without satisfaction.[15] At the present time many cases are being treated with lipocaic, which may offer some promise, but it does not seem to alter blood cholesterol levels as had been expected.[16]

Of all the skin conditions in which food has been blamed and in which diets of all sorts have been employed, and usually with disappointing results, eczema heads the list. In the treatment of urticaria at times some specific food as cucumbers, or egg, or tuna fish, and so forth, is found to be the cause, and, of course, elimination of this item from the diet is curative, but all too often in chronic urticaria the various elimination diets are used without satisfaction. There is no doubt that some specific cause for urticaria exists, but it is not always in the diet. However, in treating the patient with urticaria and in whom no other cause can be found, it is necessary to investigate the diet as a possible source of the cause. Intradermal tests to the various foods may be given, and then the elimination of those to which there is a positive reaction may be effective. A two weeks' trial on any elimination program should be sufficient to prove its value, and if improvement has not followed, some other scheme should be instituted.

In the treatment of atopic infantile eczema and atopic dermatitis in adults, numerous dietary programs have been tried. In our experience diets have been of little benefit, although competent men like Hill regard food as being of great importance, especially in certain types of infantile eczema. He makes the following statement concerning infantile eczema: "With some cases of atopic dermatitis in which there is marked sensitivity to cow's milk, brilliant results are obtained by the withdrawal of milk from the diet or occasionally by the use of goat's milk. The same sometimes holds true for other foods. In others the results are only fair; in many, they are definitely poor. . . . I have seen nothing in the literature, including my own contributions, which leads me to believe that anyone really understands infantile eczema or that there is now any method of treatment, dietetic or otherwise, that is consistently and entirely satisfactory. And yet there is cause for encouragement in that appreciable progress has been made, particularly in atopic dermatitis, which has its roots deep in some of the most complicated and least understood phenomena of immunobiology." In those patients with atopic eczema, both children and adults, in whom a specific food sensitivity can be demonstrated, the elimination of that food should be beneficial, but many times these hypersensitive individuals react to several foods so that it is practically impossible to withdraw all of the indicated items. The results are much more satisfactory when food allergy to only a few items is found. The indiscriminate use of diets in treating eczema may not only fail in benefiting the patient; it may actually do harm by withholding foods which are sorely needed from a general nutritional standpoint. In children it is more important for them to get solid, vitamin-and-mineral-rich food so that they may grow to be strong, healthy individuals than it is to deprive them of these foods on the basis that their eczema may be benefited. These atopic individuals are often high-strung and nervous, and a sound general diet aids in developing stability, whereas denial of essential factors leads to weakness, undernutrition, maldevelopment, and more nervousness.

Many of the vitamin deficiencies are manifested in the skin or its appendages. The clinical evidences of the various deficiencies are constantly increasing and becoming better established. Within the past twenty years the list of recognizable deficiency

Journal of Cutaneous Diseases, 34, 159, March, 1916.

4. McGlasson, J. L.: "Hyperglycemia as an Etiologic Factor in Certain Dermatoses." Archives of Dermatology and Syphilology, 8: 665, November, 1923.

5. Fisher, J. E.: "The Blood Sugar Level in Some of the Common Skin Diseases." Archives of Dermatology and Syphilology, 18: 732, November, 1928.

6. Strickler, Albert, and Saylor, M. A.: "Sugar Metabolism in Acne Vulgaris." Archives of Dermatology and Syphilology, 20: 705, November, 1929.

7. Wise, Fred, and Sulzburger, M. B.: "The 1933 Yearbook of Dermatology and Syphilology." Chicago, The Yearbook Publishers, Inc., 1933, p. 10.

8. Crawford, S. Marshall, and Swartz, J. H.: "Acne and the Carbohydrates." Archives of Dermatology and Syphilology, 36: 1035, June, 1936.

9. Sutton, Richard L., Jr.: "Acne Vulgaris a Pustular Lipoidosis." Southern Medical Journal, 34: 1071-1082, October, 1941.

10. Becker, S. W., and Obermayer, Maximillian E.: "Modern Dermatology and Syphilology." J. B. Lippincott Co., Philadelphia, 1940.

11. Grutz, O., and Burger, M.: "Die Psoriasis als Stoffwechselproblem." Klin, Wchnschr, 12: 373-379, March 11, 1933.

12. Rosen, I., Rosenfeld, H., and Krasnow, F.: "Studies in Psoriasis." Archives of Dermatology and Syphilology, 35: 1093-1100, June, 1937.

13. Madden, John F.: "Cholesterol Balance and Low-Fat Diet in Psoriasis." Archives of Dermatology and Syphilology, 39: 268-277, February, 1939.

14. Clarke, George E.: "Treatment of Psoriasis with Concentrated Viosterol." Archives of Dermatology and Syphilology, 41: 664-666, April, 1940.

15. Goldfarb, Arthur E.: "Treatment of Psoriasis with Lemon, Citrin, Citrin Lemonade, and Ascorbic Acid." Archives of Dermatology and Syphilology, 43: 536-538, March, 1941.

16. Walsh, E. N., Clark, D. E., Dragstedt, L. R., and Becker, S. W.: "Further Observations on the Use of Lipocaic in Treatment of Psoriasis." Journal of Investigative Dermatology, 4: 59-67, February, 1941.

17. Hill, Lewis Webb: "The Treatment of Infantile Eczema." Journal of American Medical Association, 111, p. 2117, December 3, 1938.

18. Frazier, C. N., and Hu, C. K.: "Cutaneous Lesions Associated with a Deficiency of Vitamin A in Man." Archives of Internal Medicine, 48: 507-514, September, 1931.

19. Clausen, S. W.: "The Pharmacology and Therapeutics of Vitamin A." Journal of American Medical Association, 111: 144-154, July 9, 1938.

20. Lehman, E., and Rapaport, H. G.: "Cutaneous Manifestations of Vitamin A Deficiency in Children." Journal of American Medical Association, 114: 386-393, February 3, 1940.

21. Saunders, T. S.: "Vitamin Therapy in Dermatological Practice." Northwest Medicine, 39: 209-212, June, 1940.

22. Peck, S. N., Chargin, L., and Sabotka, H.: "Keratosis Follicular, Vitamin A Deficiency." Archives of Dermatology and Syphilology, 43: 223-229, February, 1941.

23. Simpson, J. W., and Mason, K. E.: "New Concept of Senile Vaginitis." American Journal of Obstetrics and Gynecology, 32: 125-128, July, 1936.

24. Elsom, K. O. S., Lewy, F. H., and Heublein, G. W.: "Clinical Studies of Experimental Human Vitamin B Complex Deficiency." American Journal of Science, 200: 757-764, December, 1940.

25. Durand, J. I., Spickard, V. W., and Burgess, E.: "Acrodynia Treated with Intramuscular Injections of Vitamin B." Journal of Pediatrics, 14: 74-78, January, 1939.

26. Sebrell, W. H., and Butler, P. E.: "Riboflavine Deficiency in Man: Preliminary Note." Public Health Representative, 53: 1282-2284, December 30, 1938.

27. Joliffe, N., Fein, H. S., and Rosenblum, L. A.: "Riboflavine Deficiency in Man." New London Journal of Medicine, 221: 921-926, December 14, 1939.

28. Johnson, L. V., and Eckardt, R. E.: "Rosacea Keratitis and Conditions with Vascularization of the Cornea Treated with Riboflavine." Archives of Ophthalmology, 23: 899-907, May, 1940.

29. Sullivan, M., and Nicholls, J.: "The Nutritional Approach to Experimental Dermatology. Nutritional Dermatoses in the Rat. I. Vitamin B_6 Deficiency." Journal of Investigating Dermatology, 3: 317-335, August, 1940.

30. Smith, S. G., and Martin, W.: "Cheilosis Successfully Treated with Synthetic Vitamin B_6." Proceedings of Society of Experimental Biology and Medicine, 43: 660-663, April, 1940.

31. György, P., and Poling, C. E.: "Panthothenic Acid and Achromotrichia in Rats." Schience, 92: 202-203, August 30, 1940.

32. Morgan, A. F., and Simnes, H. D.: "Graying of Fur and Other Disturbances in Several Species Due to A Vitamin Deficiency." Journal of Nutrition, 19, 233-250, March, 1940.

33. Sieve, B. F.: "Clinical Achromotrichia." Science, 94: 258-268, September 12, 1941.

34. Lind: "A Treatise on Scurvy." Sands, Murray, and Cochrane, London, 1753.

35. Hartzell, J. R., Winfield, J. M., and Irvin, J. L.: "Plasma Vitamin C and Serum Protein Levels in Wound Disruption." Journal of American Medical Association, 116: 669-674, February 22, 1941.

36. Cornbleet, T.: "Vitamin C and Pigment." Archives of Dermatology and Syphilology, 35: 471-479, March, 1937.

37. Swerts, D. B., Mitchell, H. H., and Hamilton, T. S.: "The Relationship Between Dietary Cystine and the Growth and Cystine Content of Hair in the Rat." Journal of Biological Chemistry, 95: 283-295, February, 1932.

DISCUSSION

DR. V. A. HALL (Memphis): Doctor Buchanan has discussed very ably and thoroughly, in the

short time allotted him, his subject of diets in dermatological conditions. I readily agree with him that as an etiological factor in dermatoses foods play a very minor role with the exception of vitamin deficiencies and in acute urticaria.

Food idiosyncrasies are always suspected in infantile and childhood eczemas, but rarely proved as the cause. The statement, "No one really understands infantile eczema or that there is now any method of treatment, dietetic or otherwise, that is consistently and entirely satisfactory," is certainly appropriate. The same can be said in regard to chronic urticaria, cases of recurrent erythema multiforme, and atopic eczema. It is very discouraging to find that the greater percentage of these patients fail to improve when foods to which they have shown a positive reaction are removed from the diet.

I personally am skeptical as to what influence diet may have in acne vulgaris, acne rosacea, psoriasis, and certain other dermatoses. In acute urticaria, in skin eruptions associated with diabetes, and in many of the lipoid eruptions selection of food intake is absolutely necessary for their control.

The speaker has stressed the deficiency diseases, and it is in this group that we see spectacular and satisfying results from diet therapy. During the present phase of prosperity, these conditions, however, should present themselves less frequently. I personally have noted this in regards to pellagra. During the year 1940, both in clinic and in private practice, I saw a total of thirteen well-advanced cases; in the year 1941 I saw only one borderline case. This decreased incidence, no doubt, was due to the intake of a better-balanced diet made possible by a prosperous era. I am interested in knowing if this has been the experience of Doctor Buchanan and others.

There is one point which the speaker mentioned that I would like to emphasize, this being the indiscriminate use of diet for all forms of dermatoses without regard to the etiological factors involved or to past proved efficacy. This fad should be discontinued, as more harm may result than good. Certainly sound reasoning should be used in prescribing diets, and a sharper line drawn between what has been proved and what has not been proved of value.

DR. JOHN P. HENRY (Memphis): As most of you know, I am classified as an allergist and not as a dermatologist. Nevertheless, we see many patients with a dermatosis of one kind or another. Some are referred by dermatologists as being definitely allergic and others by the general practitioner with no diagnosis, but perhaps the greatest number come on their own accord or the recommendation of friends and invariably want to be tested with foods only. However, I have an ironclad rule not to subject patients to a long series of tests until a competent dermatologist has expressed an opinion as to the probable diagnosis and the possibility of allergy. In this way, many patients are spared unnecessary testing and needless dieting.

In discussing a paper, I believe it is well to bring out opposing views, if any, to clarify certain points by further discussion, but I am in more or less accord with Doctor Buchanan and think he has presented a very excellent and timely contribution. He evidently sees bad results from needless dieting and we, in allergy, do likewise.

From an allergic standpoint, one of our greatest sources of worry comes from the false ideas that patients have concerning the role of dieting and skin testing. If an allergic examination were as simple as most patients think, there would be no need for specialization. In the first place, most individuals blame foods for any dermatosis which may be present, and, secondly, the majority believe it is only a matter of making a few scratches, after which they are to be handed a list of forbidden foods, and that is all there is to it. Unfortunately, some physicians are guilty of practicing and furthering this idea. Rarely a day passes that we do not see patients who are in a state of severe malnutrition from needless dieting, and usually the dermatosis is still present—often worse.

I do not think Doctor Buchanan means that special diets are all wrong, and certainly I do not, but, like him, I think the question of limited diets is being overdone. He says it is necessary to investigate diet if no other cause can be found, particularly for urticaria. This is the one condition for which patients usually blame foods 100 per cent, but there are at least six recognized types of urticaria from an etiologic standpoint, and I believe the drug and psychogenic types probably account for as many as the food type.

In so-called atopic dermatitis, many allergists believe that inhalants are as important as or more important than foods—particularly in adults. Contact dermatitis is now much better understood and not blamed on foods as in the past. Infantile eczema is still a problem and more often is due to several factors, such as one or more foods, contact substances, and inhalants, all of which have to be corrected before results are obtained.

What if foods do play a part or at least are suspected? For allergic individuals, it is necessary for us to prescribe a great many special diets, but always with special precautions. Seven to ten days is our limit for the trial period because any symptoms due to foods usually clear up within that time. However, in the case of extensive changes in the skin, lesions may still be present at the end of the trial period, but if noticeable improvement has taken place and all itching has ceased, food additions are then begun. If a certain food does not cause a return of itching or lesions, it is added to the basic diet, another food is tried, and so on. For the past fifteen years, I have always stressed the fact that positive skin reactions may represent three separate phases, namely, past history, present history, or future history. Therefore, when foods are suspected and positive reactions are obtained, we are still not justified in

handing a patient a list and saying those foods must never be eaten again. On the contrary, we formulate a diet composed of non-reacting foods for the short trial period of seven to ten days. Following this, each and every food eliminated must be tried and either proven harmful or harmless.

In my experience, the food tests are only of help by using the intradermal method except in rare instances when the patient is extremely sensitive and does react by the scratch method.

In children a sensitization to one or more foods is often responsible for various allergic conditions such as asthma, gastrointestinal allergy, eczema, and so on, and in adults, foods are frequent causes of allergic headaches, gastrointestinal upsets, and other forms of allergy; but I believe that, as far as the skin is concerned, foods play less and less a part as the individual grows older.

In conclusion, it is my impression that we would see fewer dermatoses if laymen could be educated to think more in terms of a well-balanced and adequate diet as Doctor Buchanan suggested. Also I would add the importance of some form of daily exercise, proper elimination, eradication of foci of infection, and last, but not least, the practice of the old saying, "Cleanliness is next to godliness."

DR. STEPHEN E. WILLIAMS (Chippewa Falls, Wisconsin): Mr. Chairman, as one of your Northern outlaws, I would like to extend a thank-you for the courtesy shown to my wife and me in the last few days while attending your Tennessee State Medical Association meeting. We would like to extend an invitation to you people, when you get so warm down here that you do not dare stay outdoors, to come up to Wisconsin and get cool and go fishing.

This subject has been a most interesting one to me, because up in our country all of us physicians have taken an active interest in the nutritional program in defense. I am one of the older physicians in my community and have been asked by our society to take an active part with the Red Cross and National Defense. I had my eyes opened two weeks ago when I attended the first nutritional defense meeting with the women in our community. You will be surprised at what the average dietitian and woman in your community knows about food. I have learned a great deal more in these meetings than I have imparted. One of the most learned papers that I heard at one of these meetings was by an ex-schoolteacher who went into the diet problem, and she emphasized a fact that I have not heard emphasized any other place, and that is that the chemistry of our food is quite as important as our vitamins. She called the attention of the ladies present to the great value in trying to select their foods and vegetables from as far distant portions of the United States as possible because in every part of the United States the chemistry that goes into the foods and vegetables is entirely different. I think that is something worthy of mention.

This subject of allergy has been exceedingly interesting to me because as a youngster and even until after I was a physician I was a hay-fever sufferer and an asthma sufferer. Shortly after getting married—I hate to give this credit to my wife—for some reason my hay fever and asthma began to disappear, and at the present time I can go any place and eat anything that anybody else can and I have no trouble whatsoever, believe it or not! What is it? I do not know.

Here is another interesting thing. At our Mayo Clinic, which is only a few miles from where I live, and where I go very often—and a more courteous bunch of fellows I am sure you will never meet than the boys at Rochester—they told me at one of their Wednesday night conferences that the highest proportion of allergic children of any place that they have ever found is in the doctors' children of Rochester, and the largest proportion of allergic people who go through the Mayo Clinic in a year are doctors first and ministers second. There is something for you allergy people to shoot at.

Again I want to say thank you, come and see us.

DR. R. N. BUCHANAN, JR. (closing): I cannot answer Doctor Hall's question about the incidence of pellagra in 1940 as against 1941 or 1942 because prior to July of 1941 my experience was strictly in the clinic and a good deal more pellagra is seen in clinic patients than in private practice or in a combination of private and clinic practice. Also I am unable to make a comparison because of difference in my location. Less pellagra is seen in the East than in the South.

I want to thank Doctor Williams and Doctor Henry and Doctor Hall very much for their discussion.

HYPERPARATHYROIDISM*

(A Symposium by Drs. N. S. Shofner, E. H. Barksdale, and Eugene M. Regen, Nashville†)

Part I

N. S. SHOFNER, M.D., F.A.C.S., Nashville

Before discussing hyperparathyroidism, I shall give a brief review of the anatomy and physiology of the parathyroid glands.

The parathyroids are the smallest glands of the endocrine system. They were first recognized as glandular structures by Sandstrom in 1880, who named them because of their relation to the thyroid gland.

The parathyroids in man are pinkish or yellowish brown ovoid bodies three to eight millimeters long, two to five millimeters wide, and five-tenths to two millimeters thick. Their combined weight varies from five-hundredths to three-tenths gram.

The normal number is four, and they are referred to as the superior and inferior pairs. The superior pair are usually found, one on either side, on the posterior surface of the thyroid at the junction of the upper and middle thirds of the thyroid and are imbedded in the thyroid capsule. The inferior pair are usually found at the level of the inferior extremity of the lateral thyroid lobes just outside the thyroid capsule. There have been reports of cases with only two parathyroids and of others with as many as twelve. They have been found in the thorax and at the bifurcation of the carotid. The parathyroids are in close relationship to the recurrent laryngeal nerves. The gross appearance of a parathyroid is somewhat suggestive of a fat tab, but it has a more definite structure and is of firmer consistency than fat. Microscopically, the parathyroid is surrounded by a delicate capsule from which trabeculae penetrate the gland and divide it into lobules. In the adult gland there are two types of cells—the "chief cells" and the "oxyphilic cells."

The first knowledge of the function of the parathyroid glands was gained from the observation of the effects of their removal. Schiff in 1884 produced tetany and death after thyroidectomy in cats and dogs, but noted that the tetany of rabbits following thyroidectomy was not fatal. This difference was due to the fact that the parathyroids in cats and dogs are so situated that thyroidectomy involved removal of the parathyroids as well, while in the rabbit the inferior parathyroids are at a little distance from the thyroid and are not likely to be removed in thyroidectomy. The fact that tetany following thyroidectomy was due to incidental removal of the parathyroids was first proved by Vassale and Generali, who produced fatal tetany by removal of all the parathyroids without removal of the thyroid. Erdheim called this form of tetany tetania parathyreopriva.

MacCallum and Voegtlin demonstrated that the symptoms of tetany are due to a decrease in the blood calcium and an increase in blood phosphorus. The parathyroids are intimately related to calcium and phosphorus metabolism of the body and improper function of these glands interferes with the metabolism of these minerals.

In man the normal calcium content of the blood is 9.5 to eleven milligrams per 100 cubic centimeters of plasma. The normal phosphorus content of the blood is from 2.5 to 3.5 milligrams per 100 cubic centimeters of plasma. In children it is from 4.5 to six milligrams per 100 cubic centimeters of plasma.

The regulation and maintenance of a fairly constant level of blood calcium and phosphorus depend upon a balance between intake, utilization, and excretion of these minerals, and these are affected by the availability of a mobilizable reserve of these minerals, the activity of the parathyroids, and other factors. In the normal individual there exists an equilibrium between the amount of calcium salts and phosphates ingested and excreted. About one gram of calcium and two grams of phosphorus are ingested daily. Whatever is not used for

*Read before the Nashville Surgical Society, Nashville, Tennessee, February 12, 1943.

†From the Department of Surgery, Vanderbilt University School of Medicine, Nashville, Tennessee.

growth of bone, for formation of milk, and other needs is excreted. Normally from seventy per cent to ninety per cent of the calcium ingested is excreted in the feces and only a little through the urine. Vitamin D is necessary for proper absorption and utilization of lime salts.

The parathyroid hormone has not been isolated, but parathyroid extract has been effectively prepared and through Collip's work with this extract the knowledge of the parathyroid function has been greatly extended. Proof that the extract contains the active principle of the gland is afforded by the relief of tetany which follows its injection.

Injection of parathyroid extract into normal animals produces a rise in blood calcium and by repeated injections the calcium level may reach as high as twenty milligrams per cent. This is accompanied by a rise in the magnesium content of the blood and a fall in phosphorus. There is diuresis with increased excretion of calcium, chloride, and phosphates in the urine. The rise in blood calcium, despite its increased excretion, is due to mobilization of calcium from the bones and tissues.

Mandl in 1925 proved that osteitis fibrosa cystica, or Von Recklinghausen's Disease, is the result of overactivity of the parathyroids. His discovery stimulated a search for other clinical manifestations of this condition and it is now believed that osteitis fibrosa cystica represents the end results of hyperparathyroidism and that before such extreme results are manifested in the bone there are other clinical manifestations.

Hyperparathyroidism is fairly uncommon and occurs more frequently in women than in men. It is more common in the mature adult, but has been reported in young children. Generally speaking, it is an insidious disease, but at times the symptoms may be acute. The symptoms of hyperparathyroidism are of three groups: (1) those due to hypercalcemia; (2) those due to skeletal changes; (3) those due to increased urinary excretion of calcium and phosphorus.

The symptoms due to hypercalcemia are loss of weight and strength, loss of appetite sometimes accompanied by nausea and vomiting, muscle, joint, and abdominal pain, cardiac irregularities and other vague symptoms which are likely to lead to a diagnosis of neurasthenia. There may be constipation and secondary anemia.

The symptoms due to skeletal involvement may be generalized decalcification, bone cysts and giant-cell tumors, fractures, and skeletal deformities. The prolonged withdrawal of calcium salts from the bones produces generalized osteoporosis revealed by the X-ray. The bones of the skull, vertebra, pelvis, and the long bones present a finely granular appearance. There is thinning of the cortex and trabeculae of the long bones which may be accompanied by cysts of the shafts. The softening of the bones may produce eventual collapse, especially of the spine and long bones, with resultant extreme deformities.

The increased urinary excretion of calcium and phosphorus give rise to urinary symptoms, among which are polyuria, polydipsia, urinary lithiasis, dysuria, albuminuria, and hematuria. In advanced cases renal function may be so impaired by calcium deposits in the kidneys as to produce death. The calcium deposit in the kidneys is likely to be peritubular with obstruction of the uriniferous tubules.

Most cases of hyperparathyroidism apparently have been due to an adenoma of one parathyroid gland, but it is said at times to be due to a generalized enlargement of all the parathyroid glands.

The diagnosis of hyperparathyroidism is made on the basis of the symptomatology as outlined above, the X-rays, the findings of an increase in the serum calcium and a decrease in the serum phosphorus, and a negative calcium balance.

In hyperparathyroidism the blood calcium is almost always twelve milligrams per cent or higher and may be above twenty milligrams per cent.

The inorganic blood phosphate level is likely to be reduced to 1.5 or 2.5 milligrams per cent as compared to the normal of 2.5 or 3.5 milligrams per cent. The phosphatase level may reach twenty Bodansky units

or more as compared to the normal of 1.5 to four Bodansky units.

Normally seventy to ninety per cent of the ingested calcium is excreted in the feces and only a small amount in the urine. In hyperparathyroidism seventy to ninety per cent is excreted in the urine. The total calcium excretion is increased so that there is a negative calcium balance.

There are several conditions which present certain resemblances to hyperparathyroidism. Some of these are adolescent rickets, senile osteoporosis, extensive metastatic carcinoma, multiple myeloma, and so-called unilateral Von Recklinghausen's Disease. There are usually clinical differences and the complete differentiation can be made by X-ray and blood chemistry studies.

Surgical removal or resection of the adenomatous or hyperplastic parathyroid gland is the accepted treatment of this disease. Irradiation has been used, but without much success. Medical management, involving high calcium intake, may help prevent decalcification of the bones, but is not curative.

In operating for this condition exposure is obtained by the same approach as for thyroidectomy. Either local or general anesthesia may be used. The thyroid is retracted forward and search is made for the enlarged parathyroid in the normal positions. If no such enlargement is found in the normal positions search must be made in other near-by regions. They have been found in the thorax.

Small nodules of thyroid tissue may at times be confusing, and it is advisable to submit the specimen to the pathologist for frozen section to make sure that it is parathyroid and not thyroid tissue.

In case no definite parathyroid tumor is found it has been recommended by some that several parathyroid glands be resected. This has been contradicted by the majority opinion on the ground that failure to find a parathyroid tumor does not disprove its existence and that resection of normal parathyroids may be harmful.

Following operation there is a very prompt drop in blood calcium and rise in phosphorus level. This is likely to go so far as to produce tetany which must be controlled by the administration of calcium intravenously and orally, and if this is not sufficient by the injection of parathyroid extract.

As soon as the tetany is controlled there is a prompt improvement in the patient's sense of well-being, increase in appetite, and relief of muscular and joint pains. The remaining parathyroids gradually compensate for the removal of one and the calcium and phosphorus metabolism return to normal. The recalcification of bone is a gradual process and it may take months for an appreciable improvement of the bones to be evident in the X-ray films.

Case Report—Mrs. S. G. C.

This patient was a white woman twenty-nine years old who was admitted to Vanderbilt Hospital, April 9, 1942, as a private patient of Dr. E. H. Barksdale. Her chief complaints were weakness, run-down condition, and kidney trouble.

She had considered herself well until two years ago, when she noticed some loss of strength. Ten or eleven months ago her weakness became more marked and she began losing weight. She lost about twenty pounds within a period of two months. Her usual weight was about ninety-seven pounds and for the past few months has been about seventy-three or seventy-four pounds.

For a year she has had frequent nausea and vomiting after meals; has had muscular aches and cramps of moderate severity; has been constipated; and has had daily enemas for eleven months.

She has had low-back pain; has had frequent voiding of fair amounts of urine and burning upon urination. Six months ago intravenous pyelogram elsewhere showed small osseous deposits in both kidneys. Guinea pig inoculations of urine proved negative for tbc. Pus has been found in urine, but no blood.

For the past six months she has been in bed except for getting up for a bath twice a week. A year ago she had puffiness about the eyes for a short time.

For the past six months has often had afternoon temperature of 99.4 degrees

Fahrenheit to 100 degrees Fahrenheit; has had shaking chills several times with temperature up to 101 degrees Fahrenheit; has had rather frequent night sweats, but not drenching in character. Past history, usual diseases of childhood. Tonsillectomy and adenoidectomy at age five. Appendectomy at age twelve. Excision of fissure in ano at age twenty-two. Thinks she had malaria a few years ago.

Menstrual history: Married seven years. One child six years old and one two years old living and well. Miscarriage of first pregnancy. Menses always somewhat irregular. Has menstruated only twice in last six months; last time a month ago. No discharge or menorrhagia.

Family history: Father living at sixty-three. Has hemiplegia. Mother living and well at fifty-five. No brothers or sisters.

Physical examination: A poorly nourished young woman of twenty-nine years. Very intelligent and cooperative, but seems depressed. Not acutely ill. Skin is pale.

Temperature 99 1.5, pus 108, blood pressure 130/70.

No definite abnormalities were disclosed upon physical examination except a slight fullness at the left lower pole of the thyroid gland suggestive of a thyroid nodule.

Laboratory findings upon admission or within a few days thereafter were as follows:

Urine: cloudy, 1,004, alkaline, albumin trace, sugar negative, microscopic 12 to 15, W.B.C./H.P.F. No R.B.C. or casts.

Intravenous P.SP:

	15 Min.	*30 Min.*	*1 Hr.*	*2 Hrs.*
April 9, 1942	5%	5%	5%	10%
April 11, 1942	5%	5%	10%	5%

Culture of urine: Positive for staphylococcus aureus and bacillus coli.

Blood examinations: R.B.C. 2.56, W.B.C. 8600, Hgb. 8.2 grams. Kahn: negative.

	N.P.N. %		*Sugar*
April 10, 1942	41	April 11, 1942	76 mg.%
April 11, 1942	40		
April 13, 1942	43		
April 17, 1942	44		

	Uric Acid		*Cholesterol*
April 13, 1942	5.3%	April 17, 1942	227 mg. %

	Serum Calcium %	*Phosphorus %*	*Creatinine %*	*Phosphatase B. U.*
April 10, 1942	16.4	3.8	1.5	
April 11, 1942	16.6	3.7	1.4	
April 13, 1942	18.4	3.6	1.4	
April 17, 1942				25.5

B. M. R.:

April 15, 1942—Plus 17%. T. 98.6F. P. 86 to 90. Weight 73 pounds.

April 16, 1942—Plus 13 %. T. 98.6F. P. 82 to 88. Weight 73 pounds.

Cystoscopic examination by Doctor Barksdale on April 13, 1942.

Mucosa dull. No acute inflammation or ulceration of bladder. Ureters negative and easily catheterized with number five catheters.

X-ray report of pyelogram by Doctor McClure.

Marked atrophy of lumbar spine pelvis and femurs. Rather marked calcification in both kidneys. There is a very fine, sand-like deposit appearing throughout both kidneys. Catheter passed into each ureter. Normal filling of pelvis on both sides.

X-ray reports of examination of bones.

Marked decalcification of bones of foot, tibia, fibula, and femur, bilateral. This decalcification has a granular appearance and is perhaps most marked in medial border of upper ends of both tibiae. Bones of hand, forearm, and humerus show same change. Bones of chest also involved. Lumbar and dorsal spine show granular decalcification and cortex of anterior surface of second lumbar vertebra is not distinct and appears irregularly broken. The same granular decalcification is more marked in the skull than in any of the other bones. Impression: Hyperparathyroidism.

With the above clinical, laboratory, and X-ray findings Doctor Barksdale arrived at the diagnosis of hyperparathyroidism. I was called in consultation and concurred. We advised exploration for parathyroid adenoma and the advice was accepted.

Operation was performed on April 18, 1942. The operative notes follow: Local anesthesia. Low-collar incision with usual exposure of thyroid gland and transverse division of left ribbon muscles. Right lobe

of thyroid and retrothyroid space palpated and inspected and no suspicious nodule found.

The left thyroid lobe contained a very small nodule exactly at the inferior pole on the posterior surface. This was removed and submitted to the pathologist who reported that it was thyroid tissue.

A second nodule the size of a small marble was found just above the inferior pole of the thyroid on the posterior surface. This nodule was somewhat grayish pink in color. There was a definite line of cleavage between the nodule and the thyroid. The nodule was removed completely with sharp and blunt dissection and submitted to the pathologist for frozen section.

The report was parathyroid tissue.

Hemostasis with 000 chromic catgut. Muscles and fascia sutured with 000 chromic catgut. Clips to skin.

Pathological report: Specimen consists of an ovoid mass weighing 2.2 grams and measuring 2 x 1.4 x 1 centimeter. The tumor has a complete thin capsule and is of fairly smooth contour. On cross section the tissue has a pinkish color, is firm and somewhat friable, is homogeneous except for several small blood-filled cysts. No calcification seen.

Microscopic: Section reveals cords and sheaths of polygonal cells with vacuolated cytoplasm and fairly small round, rather dense nuclei, which vary somewhat in size. This group of cells is in the majority and they are somewhat larger than another group which appear to be more closely packed and have cytoplasm. Their nuclei are also round, but the chromaffin appears in blocks resembling the plasma cell nuclei. When viewed with lower power the line of demarkation between the cell types is quite distinct. The stroma is sparse. There are numerous endothelial tubes or channels. There are several small areas of hemosiderin which probably represent old areas of hemorrhage. No malignancy seen.

Postoperative course: The patient stood the operation well and returned to her room in good condition. There was a prompt drop in the blood calcium which two days postoperative was 11.2 milligrams per cent. The phosphorus also dropped to two milligrams per cent. The blood serum and blood calcium fluctuated from day to day, the lowest level of calcium being reached on April 24, when it was 6.6 milligrams per cent. And the highest point during hospitalization was May 19, when it was 9.5 milligrams per cent. The lowest phosphorus level was 1.6 milligrams per cent on April 21 and the highest was five milligrams per cent on August 14.

The following is the record of the blood chemistry during this hospital admission:

	Serum Calcium %	*Phosphorus %*	*Phosphatase B. U.*
April 20, 1942	11.2	2.0	
April 21, 1942	7.4	1.6	
April 22, 1942	8.0	2.6	21.1
April 24, 1942	6.6	2.7	25.3
April 25, 1942	6.8	2.7	21
April 30, 1942	7.7	2.5	25.6
May 4, 1942	7.2	2.9	
May 5, 1942	7	3	
May 13, 1942	7.1	3	
May 19, 1942	9.5	3.5	
June 4, 1942	8.4	4	
June 12, 1942	6.8	3	
June 23, 1942	8	2.9	
July 5, 1942	9.2	3.9	
July 14, 1942	7.9	4.2	
July 31, 1942	7.1	4.1	
August 7, 1942	7.4	4.8	
August 14, 1942	7.3	5	
August 23, 1942	7.3	5	

Postoperative P.S.P.:

	1 Hour	*2 Hours*
May 4, 1942	25%	15%

I.V. P.S.P.:

	15 Min.	*30 Min.*	*1 Hr.*	*2 Hrs.*
July 30, 1942	15%	25%	20%	10%

There was no appreciable reaction until April 22, four days postoperative, when mild tetany developed, at which time the blood calcium was eight milligrams per cent. There was slight muscle stiffness and circumoral pallor. She was started on calcium gluconate ten grams three times daily by mouth. On the afternoon of the fifth postoperative day there was marked carpopedal spasm. Positive Trousseau's sign and Chvostek's sign. She was relieved fairly promptly

by ten cubic centimeters of ten per cent calcium gluconate intravenously and 100 units of parathormone intramuscularly. It was necessary to repeat the above injections for several days, and during this time there was some laryngeal spasm on one occasion. On some occasions twenty cubic centimeters of ten per cent calcium gluconate was given intravenously. By May 1, 1942, thirteen days postoperative, the patient was up in the wheel chair and feeling fine. The appetite was good.

On May 7, 1942, bicycle exercises in bed were started and repeated daily and the patient was able to walk from her bed to the chair, although she was still extremely weak.

On May 19, 1942, a month and a day after the operation, while the blood calcium was 9.5 milligrams per cent and phosphorus 3.5 milligrams per cent, the patient was feeling extremely well. On this day she was given an enema and left on the bedpan. The nurse left the room and a few moments later a nurse's aid went to the patient's room and found her screaming with pain in her thighs. The intern came promptly and shortly afterwards Doctor Barksdale and I arrived and none of us could make out evidence of a generalized convulsion. X-ray revealed bilateral fractures of the neck of the femur. Doctor Regen was called and under spinal anesthesia manipulated the fractures and applied a spica cast. It is not known whether the fractures were caused by a generalized tetanic convulsion or by some muscle pull incident to being on the bedpan. If it were a convulsion, it certainly was brief and did not recur. Also against this explanation is the fact that the blood calcium was at its highest level since the operation.

The patient made a good recovery from her fractures and on September 9, 1942, X-ray showed firm union in good position.

She was discharged from the hospital on September 12, 1942. She was feeling fine and had gained twenty pounds, now weighing ninety-three pounds. There were no complaints and her strength was returning. She was instructed to return to the physiotherapy department in order to improve her walking.

On November 23, 1942, she reentered the hospital for a checkup. At this time she was walking well. She carried a cane, but used it very little. She was feeling extremely well.

The laboratory reports at this time are as follows:

	Calcium Mg. %	*Phosphorus Mg. %*
November 23, 1942	9	3.6
November 24, 1942	8.7	3.6

Intravenous P.S.P.:

	15 Min.	*30 Min.*	*1 Hr.*	*2 Hrs.*
Nov. 24, 1942	10%	10%	10%	5%

The X-ray report showed considerable recalcification of the bones. There was still marked calcification of the kidneys.

X-Ray Report

There appears a very slight reduction in the amount of calcium present in the kidneys as compared with previous examinations. Intravenous pyelogram shows unsatisfactory filling. In fact, it is difficult to say that there is any dye in the kidneys up to forty minutes.

Bones of pelvis and lumbar spine show generalized atrophic change. There does not appear to be as much of the bone change suggesting hyperparathyroidism as was present on previous examination.

The fractures in both hips appear to be solidly united.

There is marked improvement seen in bones of the skull with a return to relatively normal appearance at the present time as compared with original films made in April of this year.

Comparison of the hands also shows a very marked improvement in the bone structure and calcification. The bones of the hands at this time appear within normal limits.

On November 30, 1942, the patient was on her way to report to Doctor Barksdale and fell in the outpatient department and sustained a supracondylar fracture of the right femur. In Doctor Regen's absence

Dr. Rollin Daniel was called and manipulated and immobilized the fracture. Upon Doctor Regen's return he took over treatment of the fracture. The patient is still in the hospital, but is out of her cast and now has good union. She is remaining in the hospital for physiotherapy.

Her recent laboratory reports are as follows:

Urine, November 30, 1942—Sp. Gr., 1.010; reaction, alkaline; albumin, negative; sugar, negative; diacetic, negative; microscopic, Occ. W.B.C. and R.B.C.

Urine, January 27, 1943—Sp. Gr., 1.020; reaction, acid; albumin, negative; sugar, negative; diacetic, negative; microscopic, Occ. W.B.C.

P.S.P. I.V.:

	15 Min.	*30 Min.*	*1 Hr.*	*2 Hrs.*
January 27, 1943	10%	10%	10%	10%

Culture of urine on December 23, 1942, sterile.

Blood:

N.P.N., December 1, 1942, twenty-six per cent.

	R.B.C.	*W.B.C.*	*Hemaglobin*
November 30, 1942	3.7	8200	12.8 gms.
January 27, 1942	4.25	7500	12.5 gms.

	Serum Calcium Mg. %	*Phosphorus Mg. %*	*Acid Phosphatase*
December 1, 1942	8.0	3.6	
January 4, 1943	9.2	2.5	
January 27, 1942		3.0	2.6 B. U.

She has a good appetite and is feeling very well. In spite of her vicissitudes she is very cheerful and optimistic; and in view of her general improvement, her laboratory improvement, and the steady improvement in recalcification of her bones, I am inclined to share her optimism.

BIBLIOGRAPHY

Grollman: "Essentials of Endocrinology." J. B. Lippincott Company.

Collip: Journal of Biological Chemistry, 1925, LXIII, pp. 395-438.

Albright, Aub, Bauer: Journal of American Medical Association, 1934, CIII, pp. 1276-1286.

Albright, Baird, Cope, Bloomberg: American Journal of the American Sciences, January, 1934, pp. 49-64.

Felix Mandl: Archiv. fur klinische Chirurgie, 1926, Vol. 143, pp. 244-284.

Churchill and Cope: Annals of Surgery, 1936, Vol. 104, pp. 9-35.

Samuel S. Riven: Annals of Internal Medicine, 1935-36.

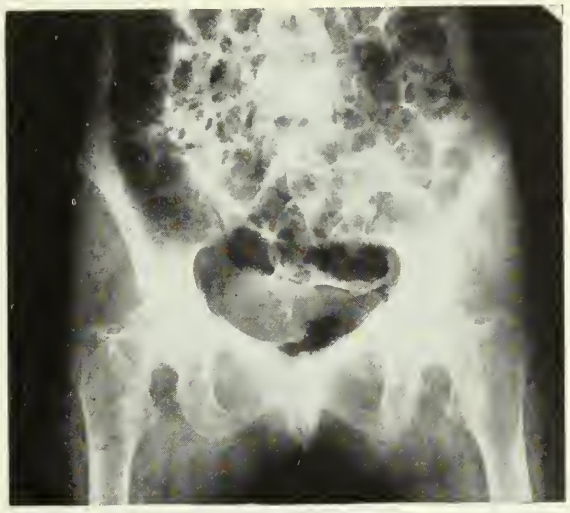


Fig. I—Preoperative X-rays of femurs and pelvis showing decalcification, but no fractures.



Fig. II—X-ray of femurs on May 19, 1942, showing bilateral fractures of femur.



Fig. III—X-rays of femurs and pelvis November 24, 1942, showing union of fractures and some recalcification.



Fig. IV—Preoperative X-rays of hands showing marked decalcification.



Fig. V—Postoperative X-rays of hands November 24, 1942, showing recalcification of hands.



Fig. VI—Preoperative X-ray of skull showing marked granular decalcification.



Fig. VII—X-ray of skull November 24, 1942, showing recalcification of skull.



Fig. VIII—Pyelogram showing calcium deposits in kidneys. Later X-rays of kidneys showed no appreciable change.



Fig. IX—Photograph of specimen, adenoma of the parathyroid removed April 18, 1942.

Part II

E. H. BARKSDALE, M.D., Nashville

Hyperparathyroidism was established as a disease entity in 1925, but for a number of years it was considered a disease of bone alone since it was believed that the parathyroid hormone acted primarily on bone and any disorder or hormone production must result in changes in the bones.

The recognition of the importance of the kidney complications as a diagnostic sign waited several more years. The excessive output of calcium by the kidney had been established as part of the pathologic physiology of the disease by 1932, but attention still remained focussed on the bones until Albright called attention to the incidence of the lesions of the urinary tract in patients suffering from the disease. His first case, diagnosed by means of the kidney stone complication, also had a moderate degree of skeletal decalcification. In a short time, however, patients with renal stone, but no bone disease, appeared in whom hyperparathyroidism was proven by operation. He had then proven that bone involvement was not a requisite of the disease.

The kidney may be involved in hyperparathyroidism in one of three ways (according to Albright and his coworkers).

First, pyelonephritis secondary to the formation of calcium phosphate stones in the kidney pelves. Calcium and phosphorus excretion in the urine is greatly increased; this predisposes the recurrent stone formation and chronic pyelonephritis follows.

Second, acute parathyroid poisoning with anuria and death from undetermined cause in a few days with calcium deposits in kidney parenchyma as well as in other organs, but no chronic renal changes. Collip showed that excessive doses of parathormone in dogs resulted in a few days in death which was preceded by anuria. Hueper showed that such dogs had calcium deposits in their thyroid glands, mucous membrane of the stomach, lungs, and kidneys. There is then little doubt but what an excessive level of the parathyroid hormone in the blood in a few days can so alter the equilibrium that calcium is deposited in tissues and death ensues. Here the kidney lesions are only a part of a more generalized process. Clinical examples of acute parathyroid poisoning must be rare, but Dawson and Struthers reported one authentic case.

Third, a form of chronic nephritis with renal calcinosis. It differs from the cases of recurrent stone formation in that the calcium here is deposited in the kidney parenchyma rather than in the kidney pelves. The kidney in these cases differs from the kidney in acute parathyroid poisoning in that it may be the only organ involved in the calcium deposits and also in that long-standing chronic inflammatory changes are present.

Reports from the Massachusetts General Hospital contain the following interesting figures: of the sixty-seven cases in their series ten had both renal stones and bone changes; twenty had bone changes alone, while thirty-seven had only renal stones.

Albright believes that any patient presenting calcification in the urinary tract or a history of having passed a stone should be suspected of the disease. He also states that between ten and fifteen per cent of the patients with renal stones studied by him and his associates proved to have hyperparathyroidism. These figures are in marked contrast to the figures from other clinics. Braasch in reviewing the cases of urinary lithiasis at the Mayo Clinic found that hyperparathyroidism was an etiologic factor in only two-tenths per cent. Higgins in a recent monograph on renal lithiasis states that he found hyperparathyroidism in approximately one-tenth per cent of his cases of renal calculi at the Cleveland Clinic.

Cases of hyperparathyroidism have been reported where medical treatment was followed by marked improvement of the bones, but where kidney damage eventually occurred. This would suggest that most patients (perhaps all patients) with this disease will sooner or later develop kidney damage unless the cause is corrected by successful surgery.

Granting that surgery has been effective in any given case, two very interesting and closely linked questions arise. What is the prognosis as regards the kidney and what measures can be instituted to enhance the

recovery of the kidney, or at least prevent any further progress of the kidney damage?

In cases in which there is no kidney involvement it seems logical that fluids should be given freely as long as hypercalcinuria is present. If it is thought necessary to increase the calcium intake to supply the bones, the urinary calcium as well as the serum calcium and phosphorus should be watched carefully. The use of agents which will acidify the urine have been suggested by some to prevent calcium deposits in the kidney, but there is evidence that these drugs enhance the decalcifying power of parathyroid hormone.

In cases with pyelonephritis secondary to renal and ureteral stones, the stones should be dealt with according to their size, location, and symptomatology. Then every effort should be made to clear up the pyelonephritis. The prognosis in this group of cases will depend largely on the degree of pyelonephritis present and the response of the pyelonephritis to treatment.

The case reported tonight comes in the final group of cases called nephrocalcinosis, a form of chronic nephritis with calcium deposits in the kidney parenchyma. Albright states that once the kidneys are damaged as a result of nephrocalcinosis, recovery will not take place, and there is even evidence that sometimes the renal condition is progressive after its cause has been removed. Bauer states that renal function in this group does not improve after the parathyroid tumor has been removed, but in this patient the two-hour phenosulphophthalein was twenty-five per cent before operation, two weeks after operation it was forty per cent and repeated determinations in the ten months since operation continue to show an excretion of forty per cent.

The blood nonprotein-nitrogen which was forty-one to forty and forty-three before operation has ranged from thirty-six to twenty-eight since operation.

The Fishberg concentration test before operation showed a range in the specific gravity of the urine from 1.004 to 1.010; now the range is from 1.010 to 1.020.

While these figures indicate some improvement in the patient's renal function, the X-ray shows no improvement in the appearance of the kidneys.

In any case with renal damage in which a high calcium diet is used in order to supply the bones with calcium the urinary calcium may increase. If so, there will be danger of new calcium deposits in the kidney. This danger may not be present in cases with normal renal function. Aub reports that the urinary calcium, in a case of hyperparathyroidism studied by him, was about the same whether the patient was on a high or a low calcium diet.

Our patient required the intravenous administration of calcium, to control symptoms of tetany, for a period of about ten days after operation. After this was discontinued, the urinary calcium, as determined by the Sulkowitch oxalate-buffer test, has been within normal limits; therefore, I do not believe any regulation of the patient's calcium intake has been indicated.

This patient's urine examination before operation showed many white blood corpuscles per high power field, no casts, no red blood corpuscles, and a trace of albumen. The culture was positive for bacillus coli. Repeated examinations in the past few months have revealed nothing to five white blood corpuscles, a trace of albumen at times, no casts, and occasionally one to three red blood corpuscles have been reported. The patient received three one-gram doses of sulfathiazole sometime ago, but the drug was discontinued because of marked nausea and vomiting. The last cultures were sterile.

Conclusion

This type of kidney involvement in cases of hyperparathyroidism will always result in permanent kidney damage, but some improvement in the kidney function may be expected after the parathyroid adenoma has been removed.

Part III

EUGENE M. REGEN, M.D., Nashville

My remarks will be limited to a brief review of the historical development of our knowledge of the disease, hyperparathyroidism, and its effects on the skeletal system.

Certain dates and names stand out over the past sixty years because of some contribution to the study of the disease, generalized osteitis fibrosa cystica, of von Recklinghausen. The most important event during these years was an operation by Mandl of Vienna in 1926, when he removed a parathyroid tumor in the treatment of this disease.

Much of this historical sketch is taken from a paper by Bisgard. Von Recklinghausen was not the first man to report in the literature a description of the condition which bears his name. In 1700 J. J. Courtial, in a letter to Tauvry, discussed the first recorded case. Von Langendorff and Mommsen, in 1877, and Virchow, in 1886, gave very good pictures of osteitis fibrosa cystica, mentioning shortening of the patient's skeleton with softness of the bones, and the occurrence of localized areas of so-called brown tumors. Von Recklinghausen five years later, in 1891, at a meeting in honor of Virchow's seventy-first birthday, contributed a paper entitled, "Osteitis, Osteomalacia, and Osteoplastic Carcinomatosis," in which appeared the first accurate description of the condition which now is called von Recklinghausen's disease of bone. At this time he regarded the disease as an inflammatory process, but changed his opinion in later works. In 1895 Mickulicz also described the condition of osteitis fibrosa cystica as a definite type of bone tumor of obscure inflammatory origin. Even as late as 1910, Bloodgood stated that the basic cause of osteitis fibrosa cystica was a low-grade infection. DeSanti, in 1900, and Benjamins, in 1902, were the first to describe tumors of the parathyroid glands, but neither mentioned bone changes in their cases. Erdheim, in 1903, and Julst, in 1904, and MacCallum, in 1905, also each reported parathyroid tumors with no mention of bone changes. Thirteen years after von Recklinghausen first described generalized osteitis fibrosa cystica, an important step was made toward solving the etiology. In 1904 Askenazy described a case of generalized osteitis fibrosa cystica associated with a tumor of one of the parathyroid glands. The significance of this report was not suspected, and it passed unnoticed. However, Weichselbaum, in 1906, and von Verebely, in 1907, reported similar tumors with skeletal changes, and this gave Erdheim the basis for his hypothesis, that hypertrophy of the parathyroid glands was an inadequate attempt at compensation for an unknown function. Erdheim then, in 1907, described three cases of osteomalacia with enlargement of the parathyroid glands. There were many other contributors to the subject during the ensuing years. DaCosta, in 1909; Bauer, in 1911; and Molineus, in 1913, all reported parathyroid tumors in relation to decalcifying disease of bone. In 1921 Bergstrand described the occurrence of tumors of the parathyroid glands in certain cases of nephritis, tetany, epilepsy, eclampsia, and osteomalacia. In fifty cases of nephritis he found one or more enlarged parathyroid glands. In 1921 Hubbard and Wentworth reported a case of osteitis fibrosa cystica with metastatic calcification, chronic nephritis, and hyperplasia of the parathyroid glands.

The first suggestion that hyperparathyroidism might be the primary cause of generalized fibrocystic disease of bone appeared in 1915, when Slagenhaufer advised parathyroidectomy in two cases of fibrocystic disease associated with tumor. Hanson, in 1924, and Collip, in 1925, were able to isolate the active principle of the secretion of the parathyroid gland. This discovery opened new fields of investigation on which has been built our knowledge of the dysfunction of these glands.

An interesting but ironical story surrounds the development of the surgical treatment of hyperparathyroidism. In 1925, acting on the basis of Erdheim's theory that parathyroid enlargement was secondary to the bone changes of Recklinghausen's disease, Mandl of Vienna, in the case which later became classic, resorted at first to the homogenous transplantation of normal par-

athyroid tissue. However, when he found that the condition of the patient was aggravated by this procedure, he then did an about-face and performed an operation on the neck in a search for, and removal of, a parathyroid tumor, known to him to be frequently present in these cases. His patient made a recovery and became the first on record to be cured by such a procedure. However, the irony of fate willed that Mandl's fame should not go unblighted, and he himself reported in 1935 that his patient's disease had recurred, and he had been unsuccessful in another attempt to remove a second parathyroid adenoma.

The history of this disease should make us humble when we realize that it required twenty-two years for a surgeon to decide to remove a parathyroid tumor for the cure of an associated extensive crippling disease. This near quarter of a century elapsed between Askenazy, in 1904, and Mandl, in 1926, when he was forced to remove the tumor of a patient he had made worse by homoplastic transplantation.

Pathology

The pathological processes in order of their occurrence follow. For some reason, as yet unexplained, a parathyroid gland or glands enlarge, and begin to secrete an overabundance of parathyroid hormone or parathormone. This may be the result of a generalized hyperplasia of all the parathyroid tissue, or it may be the product of a single adenoma of one gland. The cause of this increased function of the parathyroid glands has not been explained. We know that a compensatory hyperplasia may occur in long-standing calcium privation, rickets, osteomalacia, pregnancy, and nephritis. In such instances hyperplasia occurs because of the need for the parathyroid hormone to maintain a normal calcium level in the blood. Albright has suggested that a primary generalized hyperplasia of the glands may be the result of some as yet unexplained substance from the pituitary body. There is some experimental work by Hertz and Kranes to support this view.

Albright and his coworkers have given us the following conception of the action of this overabundant parathyroid hormone in the blood stream. Working on humans, they found that the first detectable metabolic change was an increased excretion of phosphorus in the urine. This causes a lowering of the serum phosphorus. This is followed by an effort on the part of the skeletal system to raise the serum phosphorus level, but the phosphorus cannot be set free from the skeleton without liberating calcium. As both calcium and phosphorus are mobilized from the skeleton and pass into the blood stream, the kidneys rapidly excrete the phosphorus and much less rapidly excrete the calcium. This causes a marked elevation of the serum calcium value, but a continued depression of the serum phosphorus. Since the first microscopic evidence of the overactivity of parathormone is a marked increase of the action of osteoclasts, this bone destructive process seems likely the body's mechanism for rapidly liberating calcium and phosphorus from the skeleton. This marked osteoclastic, or bone destructive activity of these giant cells, which plaster themselves in every possible location on the surfaces of the bone trabeculae, throughout the Haversion systems, etc., is followed by a similar, but less marked increase in activity of osteoblasts, and these osteoblasts form small amounts of new bone, but the new bone formation never catches up with the bone destruction. It is the increased activity on the part of these bone-forming osteoblasts which produce the enzyme phosphatase and raises its level in the blood stream. This rapid bone destruction by the osteoclasts is also followed by increased activity of fibrous tissue formation which takes the place of destroyed bone. This fibrous tissue formation seems to follow very close behind the bone destructive process.

The above processes go on hand in hand until finally fibrous tissue and a small amount of new bone completely occupy the site of the previously existing bone. It is thought that hemorrhage and other traumatizing agents taking place in this fibrous tissue account for the presence of an occasional cyst in the bone; and an accumulation of the giant cell osteoclasts in a fibrous tissue area account for the brown tumors which have been described in this disease.

At any rate, the underlying and fundamental process in the bone is a destructive one by osteoclasts, with replacement by fibrous tissue, and bone destruction finally leads to pathological fractures, which is a symptom of the final stages of the disease.

The typical chemical changes in the blood stream are three: a high serum calcium, a low serum phosphorus, and a high serum phosphatase.

No one symptom is diagnostic of hyperparathyroidism, and these patients are apt to be classed for a long while as functional. The case reported tonight was vomiting three to six times a day over a period of several months while still trying to carry on her normal family and social activities. Symptoms can be divided into three groups: first, those which are produced by hypercalcemia; second, those which are caused by the increased excretion of calcium and phosphorus in the urine; and, third, those which are the result of skeletal changes. Those symptoms caused by the high concentration of calcium in the blood stream, such as nausea, vomiting, lassitude, weakness, fatigability, and hypotonia, have been discussed by Doctor Shofner. Those symptoms which are the result of an increased excretion of calcium and phosphorus by the kidneys, such as polyuria and polydipsia (to such an extent that it may suggest diabetes insipidus), nocturia, painful urination, and renal colic have been discussed by Doctor Barksdale. Those symptoms arising from skeletal changes necessarily are manifestations of an advanced state of the disease. They are pain and tenderness in the bones, tumors of the bones, kyphosis, loss of height, waddling gait, limp, spontaneous fractures, etc.

The X-ray appearances of the bones have been demonstrated by Doctor Shofner. The fine granular, mottled appearance of the bones in the usual case is the result of the osteoclastic activity throughout the skeletal system, producing myriads of tiny lacunae at the site of the bone destruction. It is easy to picture in the imagination what an X-ray film should look like as a result of this multitude of tiny cells eating into the substance of the bone from every conceivable surface. The mottled appearance of the skull film here demonstrates the typical change. Of course, one seldom sees the end stages of this process where spontaneous fracture occurs in the absence of some fairly violent force; however, the literature shows pictures of many individuals with the deformities subsequent to these fractures.

I would like to make a few comments on the differential diagnosis of hyperparathyroidism from several other conditions whose symptoms, physical findings, and X-ray examinations may closely simulate parathyroid osteodystrophy. In almost every case where the question arises, we are forced in the final analysis to turn to the chemical laboratory for a differential diagnosis. In most instances, determination of the serum calcium, phosphorus, and phosphatase suffices. Occasionally a biopsy of bone is necessary. Let it be remembered that in hyperparathyroidism the serum calcium is elevated, the serum phosphorus is depressed, and the serum phosphatase is increased. There is no condition which may be confused with hyperparathyroidism whose chemical changes give this characteristic triad.

Those conditions which may be mistaken for hyperparathyroidism are as follows, but time does not permit a discussion of their differential diagnosis: senile osteoporosis, osteomalacia, osteoporosis of hyperthyroidism, osteoporosis of disuse, or inactivity, osteoporosis resulting from a basophylic adenoma of the pituitary body, osteoporosis resulting from suprarenocortical tumors, osteitis deformans (Paget's disease), renal rickets, adolescent rickets, solitary bone cyst, solitary benign giant cell tumors, osteogenesis imperfecta (brittle bones), multiple myeloma, metastatic malignancy, lipoid dystrophies, such as Shullar-Christian disease and Gaucher's disease, blood dyscrasias such as erythroblastic anemia and leukemia, and radium poisoning.

In the study of patients with suspected hyperparathyroidism, the complete calcium determination may be scientifically helpful, but is not practical in clinical practice. It requires from one to two weeks' hospitalization with constant special nursing and at-

tention, and an elaborate chemical laboratory setup, which is available only in large institutions. The calcium balance study can, therefore, be disregarded in clinical practice and should be reserved for scientific investigation.

Finally, primary hyperparathyroidism is a rare disease and will escape notice of most observers unless we are on watch for its occurrence. The practice of suspecting its presence in all cases of renal stone, and including a blood calcium determination will usually prevent its escaping recognition. Howard of the University of Oklahoma Hospitals stated that since 1935 their staff has been parathyroid-conscious, and during the succeeding five years, 31,761 patients had been admitted to the institution. Only fifteen of these had been suspected of having hyperparathyroidism, and not one of them proved to be a true case. During the past ten years the condition has been observed three times in Vanderbilt University Hospital.

Treatment of fractures occurring in hyperparathyroidism follows the same plan as the management of fractures in general. Union is not delayed, and healing progresses as in the repair of normal bone after removal of the parathyroid tumor.

WELCOME

Tennessee State Medical Association

NOEL HOTEL

Nashville's Newest and Finest

NASHVILLE, TENNESSEE

Headquarters for
Tennessee State Medical Association

April 11, 1943

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

MARCH, 1943

EDITORIAL

Pursuant to the action of the Board of Trustees of the Tennessee State Medical Association on January 10, 1943, I hereby call a meeting of the House of Delegates of the Tennessee State Medical Association for 10:00 A.M., Sunday, April 11, 1943, at the Hotel Noel, Nashville, Tennessee.

JAMES B. STANFORD, M.D.,
President.

Medical Statesmanship

No people on earth were ever as medical care conscious as the people of the United States of today are. It makes apparent the necessity that medical doctors be also medical statesmen. There is no subject of federal legislation which requires more statesmanship than legislation related to medicine and the medical care of the people. There has always been some fine statesmen in position of leadership in American medicine. They have too often been referred to as medical politicians. The qualities of statesmanship must be encouraged and supported by the profession because the problems in medical statesmanship at the present time transcend, in importance, all other problems connected with medicine. This is true for the reason that if sound public policies and legislation are not followed, scientific medical progress along all lines will not be made.

The term statesman, as used in this connection, is distinguished from politicians. The politician, of course, is running for office, whether in or out. He attempts to sponsor legislation which he believes will make a popular appeal to his constituents and by such steps achieve political popularity and maybe election.

The statesman does not seek such temporary benefits. He considers issues from the standpoint of their long-range effects on the whole population.

It does not require a high order of intelligence, nor a very firm conviction to make a clever politician. To qualify as a statesman requires knowledge, vision, conviction, and courage. We have done much to encourage and promote scientific research. It seems essential that we now do likewise for medical statesmanship.

Soul of Medicine

The following editorial appeared in the *Daily State Gazette*, Dyersburg, Tennessee, and is here reproduced by the kind permission of Mr. Russell M. D. Bruce, president-editor.

The editor of the JOURNAL has expressed to Mr. Bruce a word of appreciation on behalf of the medical profession of Tennessee, but that does not mean that it is not appropriate for others to do likewise on their own behalf.

"It has become axiomatic for those who criticize medical men opposed to a fundamental change in the American medical system to assume that the doctors have a particular axe to grind. As a matter of fact, the doctors have only one concern: the preservation of present high medical standards. As far as financial reward goes, the average doctor could make more money under practically any other system than the present one, which far too often pays him

off in nothing more tangible than the satisfaction gained from a job well done; of seeing a sick person made healthy by his skill and experience.

"The doctors who today are carrying forward the best traditions of centuries of medical progress simply do not feel bound to kneel before the fancies of social reformers whose only idea of progress is the steady growth of bureaucracy.

"For example, they are opposed to compulsory health insurance which is merely a polite word for socialism. Experience in Europe shows that people 'protected' by such insurance do not get the medical care now provided by the American system under which the most skilled specialists and surgeons are available to all, regardless of income or economic status.

"The following comment of Dr. Edward H. Cary, chairman of the National Physicians Committee, on compulsory insurance, expresses the viewpoint of the average doctor—a viewpoint typical of the American medical system in its approach to the whole health problem: 'Compulsory insurance introduces the principle of differing qualities of medical care. It would make the doctors mercenary money grabbers and destroy their incentive to greatest efficiency. It would destroy the soul of medicine. It would undoubtedly lower the quality of medical care—and those who would suffer most would be not the doctors, but the general public—those who are afflicted with disease.' "

War Sessions Sponsored by the American College of Surgeons

The American College of Surgeons is holding twenty war sessions in different cities throughout the United States between the dates of March 1 and April 20, 1943.

A session is to be held at the Hotel Peabody, Memphis, on Friday, March 26.

The fact that this is designated a War Session does not mean that attendance is limited to doctors in the military service. All doctors are invited and the program should be of interest to all.

On another page of this issue will be found a statement with reference to the program.

A National Health Advisory Council

The following is a release from the Chamber of Commerce of the United States with reference to a National Health Advisory Council.

Dr. James S. McLester, Birmingham, ex-president of the American Medical Association, is general chairman of this project.

"A National Health Advisory Council was organized in Washington recently to project and carry out a broad program looking to health conservation as one of the most important factors in winning the war.

"The council was created by the Chamber of Commerce of the United States to consider national health problems in relation to the war program.

"The meeting was opened with a statement by National Chamber president, Eric A. Johnston, which said:

" 'Disease and physical disability in war production constitute one of the most serious threats to speedy victory. Medical authorities estimate that a well-thought-out program, vigorously carried out, could add the full time of as many as one million workers to the war program. We must disarm and defeat disease on the home front if we are to make early victory possible. Even partial conquest in that direction would add greatly to the nation's man power resources, now presenting one of the war program's most difficult problems.

" 'And, aside from the direct benefits accruing to the war effort from health conservation, we must consider the staggering cost of disease. Together with physical disability, it is taxing the American people $10,000,000,000 a year. This tax everyone pays and no one gets. It is a five to ten per cent drag on war operations.'

"General chairman of the council is Dr. James S. McLester, professor of medicine at the University of Alabama, who out-

lined the contemplated nation-wide program. He said:

" 'The plan is for a broad educational effort designed to raise the nation's health levels. Once established, it is earnestly hoped these levels can be maintained after the war is won as a means of continuing improvement of the national welfare.

" 'It is intended to promote both within and out of industry personal health, safety, nutrition, and physical conditioning, with particular emphasis on war emergency needs and conditions. The program will be made available widely to industrial organizations, chambers of commerce, and communities. In any community it can be applied to reduce work absence, raise the morale and increase the physical effectiveness of workers and to assist their families in problems of health, diet, illness, and nursing.

" 'War production officials are appealing to War Production Drive Committees, of which there are nearly 2,000 in war plants, to keep the American workman healthy and fit so as to gain man-hours in production. Only healthy workers can supply the needed drive to keep our armed forces supplied with the implements of war.

" 'Few investments can yield the returns that will come from an aggressive effort to better the national health.'

"The National Health Advisory Council will serve to channel approved technical health information developed by the country's many scientific associations to business organizations and their members throughout the country, so there may be brought about a better public understanding and appreciation of medical science as a means of safeguarding public health to win the war. It will work through the Chamber of Commerce of the United States as a central organization, which, in turn, will work through its far-flung membership of trade associations, chambers of commerce, and corporations and firms. The council's membership starts with thirty of the nation's leading medical and health authorities. This membership will be increased as the work progresses.

"The council's first meeting today, presided over by James L. Madden, of New York, vice-president of the Metropolitan Life Insurance Company, and chairman of the National Chamber's Insurance Department Committee, heard a round-table discussion of wartime health problems. Discussion leaders were Dr. James S. McLester, professor of medicine, University of Alabama; Dr. Wilson G. Smillie, Medical School, Cornell University, New York City; Dr. Felix J. Underwood, state health officer, Jackson, Mississippi; Dr. Leverett D. Bristol, health director, American Telephone & Telegraph Company, New York City; and Dr. H. M. Marvin, Yale University, New Haven, Connecticut.

"Reports were made by three committees of the council. The committees and their chairmen are: Community Health Committee, Doctor Smillie; Industrial Health Committee, Doctor Bristol; and Individual Health Committee, Dr. James E. Paullin, professor of medicine, Emory University, Atlanta, Georgia.

"At a luncheon meeting Dr. Thomas Parran, surgeon general of the United States, talked on the health state of the nation."

DEATHS

Dr. James Lindsay Andrews

Dr. James Lindsay Andrews, Memphis; Memphis Hospital Medical College, 1895; aged sixty-seven; died, January 10, 1943, of cerebral embolus.

Dr. Whitman Rowland, Jr.

Dr. Whitman Rowland, Jr., Memphis; University of Virginia, Department of Medicine, Charlottesville, 1919; aged fifty; died, January 10, 1943, of acute coronary thrombosis.

Dr. William P. Watson

Dr. William P. Watson, Dyersburg; Memphis Hospital Medical College, 1899; aged sixty-nine; died recently.

Dr. John Calhoun Rice

Dr. John Calhoun Rice, Braden; Memphis Hospital Medical College, 1902; aged sixty-four; died, February 13, 1943.

Dr. Benjamin B. Cates

Dr. Benjamin B. Cates, Knoxville; University of Pennsylvania, School of Medicine, Philadelphia, 1888; aged seventy-seven; died, January 21, 1943.

Dr. F. L. Young

Dr. F. L. Young, Knoxville; New York University College of Medicine, New York; aged sixty-four; died recently.

Dr. William Martin Barnes

Dr. William Martin Barnes, Henderson; Memphis Hospital Medical College, 1909; aged fifty-nine; died, January 10, 1943, of pneumonia.

RESOLUTIONS

Dr. Ben B. Cates, M.D.

Dr. Benjamin Brabson Cates died at his home, January 21, 1943, Knoxville, Tennessee, at the age of seventy-seven years. He was a native of Blount County, Tennessee, and the son of Dr. and Mrs. John M. Cates. He received his academic education at the Maryville College. He graduated in medicine from the Medical Department, University of Pennsylvania, in the year 1889, and located in Knoxville, Tennessee, where he did a general practice, but specializing in surgery. During his latter years surgery was the greater part of his practice. Though he was a good surgeon, his masterwork was on spinal bifida, cleft palate, and harelip. Doctor Cates was a strong believer in organized medicine. He belonged to the County, State, and American Associations. He contributed many articles to the medical journals and papers to the County Society. He was professor of surgery during the duration of the Tennessee Medical College and Medical Department of Lincoln Memorial University. Doctor Cates bridged the transition period from the old country doctor to the modern-day medical man. He had a friendly personality that made patients over many decades love him. Away from his profession he was a home-loving man, and spent much time raising beautiful flowers. The Knox County Medical Society feels a great loss in the passing of Doctor Cates, who has done so much good for humanity so many years and petition the Great Physician to comfort his sorrowing wife.

As respect to one of our beloved physicians who has passed, the committee on these special biographical notations recommend that they be placed as a memoir on the minutes of the Knox County Medical Society and copies be sent to the Tennessee State Medical Journal and his wife.

Committee on Memoir,
S. R. Miller, *Chairman,* M.D.
W. S. Austin, M.D.
Jesse C. Hill, M.D.

Benjamin Clayton Arnold, M.D.

For the fourth time in the fateful year of 1942 the Grim Reaper has reached into our group and snatched a valued member. Dr. B. C. Arnold has left a vacancy which, under present conditions, cannot be filled.

Through hard work, perseverance, and loyalty to his profession, he had fitted himself to do excellent work in his chosen field of urology.

It was a pleasure to refer work to him in his chosen specialty, and we were always assured that our patients would receive his most patient and skillful treatment and that we ourselves would be protected in our relation to them.

A modest, unassuming, hard-working, loyal, worthy disciple of Aesculapius he went his way doing good. It is amazing that he could have continued almost up to the instant of his death doing the excellent work which he did.

We grieve for our fallen brother and shall miss him in our society as well as in our social and professional life outside.

In all sincerity we extend to his sorrowing widow our deep sympathy in her bereavement. As the months go by we trust she will find consolation in the fact that she was a loyal companion and an inspiring helpmate to a member of a profession dedicated to alleviating human suffering and lengthening human life.

(Signed) Jere L. Crook, *Chairman.*
Sam T. Parker.
Glenn D. Batten.

MATTHIAS BRICKELL MURFREE, M.D.

On January 27, 1943, the tragic death of Doctor Murfree shocked the people of Murfreesboro and the surrounding communities.

Doctor Murfree was a graduate of Princeton University and received his M.D. at Vanderbilt University School of Medicine. He began the practice of medicine in Murfreesboro in 1909, being associated with his father, Dr. James Brickell Murfree, who practiced medicine in Rutherford County for fifty years.

Doctor Murfree held a large and successful practice and his life was one of sacrifice in the faithful performance of his profession.

Therefore, we, the undersigned, acting officially for the Rutherford County and Stone's River Academy of Medicine, tender these resolutions:

Whereas, the Rutherford County and Stone's River Academy of Medicine recognizes its loss and is grieved at the passing of this beloved and distinguished member.

Now whereas, we, the committee, do hereby express on behalf of the society its sense of personal loss and request that these resolutions be incorporated in the records of this society and that copies be sent to the family of the deceased and the JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION.

A. J. JAMISON, M.D.
L. M. KENNEDY, M.D.
JOHN CASON, M.D.

DR. S. S. MOODY

Dr. Samuel Shaw Moody was born August 29, 1884, in Shelbyville, Tennessee, the son of the late Dr. George W. Moody, who graduated in medicine from the University of Pennsylvania in 1869 and practiced medicine in Shelbyville, Tennessee, until the time of his death in 1931.

Dr. Sam Moody, as he was favorably known by his friends and the medical profession, graduated from the Vanderbilt University in 1909, and served his internship in the Nashville General Hospital. In 1910 he returned to Shelbyville and engaged in the general practice of medicine with his father, and they enjoyed a large clientele until 1917, when he answered the call of his country and served with the armed forces overseas. After his return he resumed his practice at Shelbyville until 1925, when he accepted a service with the Tennessee State Board of Health and did an outstanding work in this field for six years. When his father died in 1931, he returned to Shelbyville, entering private practice, at which post of duty he remained until the time of his death, January 19, 1943.

Doctor Moody was known and loved by the members of his profession as a man of outstanding ability, possessing the highest sense of honor and the keenest sense of ethics and as having a never-tiring devotion and loyalty to the people he served. He was progressive in his thinking and in his practice, sound in his logic, thorough in his analysis, and always honest with patient and his fellow doctor. He was a valuable man to his church, to his community, and to his profession.

Whereas, the Bedford County Medical Society has sustained the loss of one of its most valuable members in the passing of Doctor Moody, our admiration and esteem for him in our common field of service will guide us into a deeper realization and understanding of his many priceless virtues. We will profit well to emulate.

Therefore Be It Resolved by the Bedford County Medical Society, That these resolutions be adopted, a copy of same be sent to his family, and one to the STATE JOURNAL for publication, and a copy be spread on the minutes of this society.

Respectfully submitted by your committee,

T. R. RAY.
W. H. AVERY.
BEN L. BURDETTE.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

John J. Killeffer, captain, Medical Corps, Chattanooga, to 101st Medical Regiment Task Force, Army Post Office 709, care Postmaster, San Francisco, California.

Robert L. Akin, captain, Medical Corps, Cookeville. Present address, 66th Army

Regiment, Medical Detachment, A. P. O. 252, care Postmaster, New York City.

Alex B. Shipley, captain, Medical Corps, Knoxville, to Fort Sill, Oklahoma.

H. H. Taylor, lieutenant colonel, Medical Corps, Cookeville, now located at Woodrow Wilson Station Hospital, Staunton, Virginia.

Philip C. Thomas, captain, Medical Corps, Knoxville, to Headquarters Company, Sixth Repl. Dep., N. O. S. A., New Orleans, Louisiana.

Joseph McCoin, captain, Medical Corps, La Follette. Present address, Surgeon, Fourth Service Command, Station Hospital, Fort Jackson, South Carolina.

Richard E. Miller, lieutenant, Medical Corps, U. S. N., R. V. N., care Dispensary, Naval Air Station, Pensacola, Florida, to Naval Air Station, Jacksonville, Florida.

Benjamin F. Byrd, Jr., lieutenant, Medical Corps, 303d Medical Battalion, Camp Butner, North Carolina, to 0-419780, A. P. O. 4015, care Postmaster, New York City, New York.

P. M. Huggins, captain, Medical Corps, Gallatin, to Station Hospital, No. 2, Fort Jackson, South Carolina.

T. N. Humphrey, first lieutenant, Medical Corps, Air Transport Company, A. P. O. 677, Presque Isle, Maine, to Carlisle Barracks, Pennsylvania.

NEWS NOTES AND COMMENTS

Announcement is made of the appointment of John F. Busch, M.D., as director of Medical and Health Service for the eastern area of the American Red Cross, with headquarters in Alexandria, Virginia. Tennessee is included in this area.

Following general practice in Spartanburg, South Carolina, Doctor Busch has engaged in tuberculosis control work. He comes to the American Red Cross from the Georgia State Department of Public Health, where since 1937 he has been associated with the Division of Tuberculosis Control.

The $500 research prize annually offered by the American Urological Association will not be awarded this year.

The government has again discouraged the holding of medical conventions, except those primarily of military interest, and at these there is to be a ban on social events. Under the circumstances plans for the June meeting of the American Urological Association in St. Louis have been cancelled. (Signed) MILEY B. WESSON, M.D., *Chairman, Committee on Research, American Urological Association.*

SCHEDULE FOR TWENTY WAR SESSIONS ANNOUNCED BY AMERICAN COLLEGE OF SURGEONS

New developments in military and civilian medical and hospital service will be brought to members of the medical profession at large, and hospital representatives, through a series of twenty war sessions, beginning March 1, to be held throughout the United States under the sponsorship of the American College of Surgeons with the cooperation of other medical organizations and of the federal medical services.

Each war session will consist of an all-day program, lasting from 9:00 o'clock A.M. to 10:00 P.M., including luncheon and dinner conferences. There will be eight meetings in each session, four of which will be for the entire assembly, and the remainder divided into two meetings each for physicians and for hospital representatives. Subjects will be similar in the different places, but some of the speakers will be changed in the different states and service commands. Nationally known representatives of the United States Army, the United States Navy, the United States Office of Civilian Defense, the United States Procurement and Assignment Service, and the United States Public Health Service will address the meetings and will lead discussions, in addition to participation by prominent leaders in civilian medical practice and hospital service.

Topics to be discussed relating to military medicine will include care of the ill and injured in combat zones and after evacuation. The newer types of injuries encountered in this war, such as crush and blast injuries, will be especially considered, together with prevention and treatment of

infections, and treatment of burns, shock, and injuries of specific parts of the body. Anesthesia, plastic surgery, and the psychoneuroses of war will be some of the other topics. Problems of civilian medical care in wartime which will be discussed will include the responsibilities of individual doctors and hospitals; personnel problems of hospitals; organization of emergency medical services; maintaining adequate supplies, furnishings, and equipment; maintenance of high standards of medical and nursing education, and of hospital service in general; hospital public relations; and administrative adjustments in professional staffs of hospitals. The opening meeting of each session will be devoted to discussion of "Medical and Surgical Aspects of Chemical Warfare," led by a representative of the United States Office of Civilian Defense, and the closing meeting will be a panel discussion on problems in wartime civilian medical practice to be led by representatives of the United States Public Health Service, the American College of Physicians, the American Medical Association, medical services in industry, and the American College of Surgeons. Some of the topics for consideration at this meeting will be endemic and epidemic diseases, including tropical diseases; medical services in industry; medical and surgical practice; and supplementary postgraduate education for medical officers and civilian doctors.

Dr. Irvin Abell, chairman of the Board of Regents of the College, in announcing the war sessions, said that, although participating states and provinces for each meeting have been designated to facilitate arrangements, there will be no geographic restriction on attendance, and those who plan to attend may select the place and time which are most convenient.

The American College of Surgeons cancelled its 1942 national meeting and is holding in abeyance plans for a clinical congress in 1943, in the meantime offering the regional meeting plan provided by the war sessions to save the time of the doctors and other personnel, and to minimize transportation difficulties without sacrificing unduly during wartime the educational and stimulative benefits of medical assemblies.

1943 War Sessions Program for the Medical Profession

9:00—10:00 A.M.

Meeting for physicians, surgeons, and hospital representatives.

"Medical and Surgical Aspects of Chemical Warfare," by representative from the United States Office of Civilian Defense.

Questions and answers.

10:15 A.M.—12.15 P.M.

Care of the ill and injured in combat zones.

"First-Aid Treatment"

"Definite Treatment"

"Hospital Care, Early and Late"

"Infected Wounds"

"Clean Wounds"

"Burns"

"Shock"

"Anethesia."

"Injuries (including crush and blast injuries): Craniocerebral, Facial (including eye, ear, nose, and throat), Thoracic, Abdominal, Urological, Skeletal, Vascular, Peripheral Nerve"

By representatives of the Medical Services of the United States Army and the United States Navy.

12:30—2:00 P.M.

Luncheon for physicians, surgeons, and hospital representatives.

"The Increasing Individual Opportunity and Responsibility of Doctors and Hospitals for Service in Relation to the Accelerated War Program," by representative of the Procurement and Assignment Service.

Questions and answers.

2:15—5:00 P.M.

The care of the ill and injured after evacuation from combat zones.

"Injuries of Nerves and Tendons"

"Injuries of Bones and Joints"

"Plastic Surgery"

"Psychoneuroses of War"

"Neurovascular Lesions of the Extremities"

Subjects to be presented by five leaders. Discussion by representatives of the Medical Services of the United States Army and the United States Navy.

Questions and answers.

6:00—8:00 P.M.

Dinner for physicians, surgeons, and hospital representatives.

Panel discussion: "Administrative Adjustments in Professional Staffs of Hospitals in Wartime" (attending medical, resident, and nursing staffs). By representatives of the United States Army, United States Navy, United States Public Health Service, United States Office of Civilian Defense, Civilian Doctor, Hospital Administrator, and Nurse.

Questions and answers.

8:00—10:00 P.M.

Meeting for physicians, surgeons, and hospital representatives.

Panel discussion: "Problems in Wartime Civilian Medical Practice."

"Endemic and Epidemic Diseases, Including Tropical Diseases"

"Medical Services in Industry"

"Medical and Surgical Practice"

"Supplementary Postgraduate Education for Medical Officers and Civilian Doctors"

Including representatives of the United States Public Health Service, Medical Services in Industry, the American College of Physicians, the American College of Surgeons, and the American Medical Association.

Questions and answers.

Health Advisory Council

United States Chamber of Commerce

GENERAL CHAIRMAN

Dr. James S. McLester, professor of medicine, University of Alabama, Birmingham, Alabama.

COMMUNITY

Dr. Wilson G. Smillie, chairman; Medical School, Cornell University, New York City.

Dr. Paul White, president, American Heart Association, Massachusetts General Hospital, Boston, Massachusetts.

Dr. J. Burns Amberson, Bellevue Hospital, Twenty-Sixth Street and First Avenue, New York City.

Dr. George Kosmak, 25 East Ninety-Third Street, New York City, professor of obstetrics, New York Academy of Medicine.

Dr. George R. Cowgill, Yale University, New Haven, Connecticut.

Dr. Harry Bakwin, professor of pediatrics, New York University, College of Medicine, New York City.

Dr. Ernest L. Stebbins, commissioner of health, 125 Worth Street, New York City.

Dr. F. J. Underwood, state health officer, Jackson, Mississippi.

Mr. Bailey Burritt, president, Committee on Neighborhood Health Development, 105 East Twenty-Second Street, New York City.

Dr. Henry F. Vaughan, University of Michigan, Ann Arbor, Michigan. Represented by Dr. Nathan Sinai, University of Michigan.

INDUSTRIAL

Dr. Leverett D. Bristol, chairman; health director, American Telephone & Telegraph Company, 195 Broadway, New York City.

Dr. Harvey Bartle, Pennsylvania Railroad, Philadelphia, Pennsylvania.

Professor Philip Drinker, Ph.D., Harvard University, School of Public Health, 55 Shattuck Street, Cambridge, Massachusetts.

Dr. Anthony Lanza, chief, Occupational Hygiene Section, Office of Surgeon General, United States Army, Washington, D. C.

Dr. John J. Prendergast, medical director; first vice-president, Chrysler Corporation, Detroit, Michigan.

Dr. Loyal A. Shoudy, Bethlehem Steel Corporation, Bethlehem, Pennsylvania.

Dr. W. A. Sawyer, medical director, Eastman Kodak Company, Rochester, New York.

Dr. Harry E. Ungerleider, assistant medical director, Equitable Life Assurance Society, 393 Seventh Avenue, New York City.

Dr. John J. Wittmer, Consolidated Edison Company, New York City.

Mr. John Dewey Dorsett, manager, Casualty Department, Association of Casualty & Surety Executives, 60 John Street, New York City.

Mr. G. W. Hardy, Lumbermen's Mutual Casualty Company, Mutual Insurance Building, Chicago, Illinois.

INDIVIDUAL

Dr. James E. Paullin, chairman; professor of medicine, Emory University, 384 Peachtree Street, N. E., Atlanta, Georgia.

Dr. Leroy Gardner, member, Board of

Directors, National Tuberculosis Association, Saranac Lake, New York.

Dr. George Morris Piersol, professor of medicine, University of Pennsylvania, Philadelphia, Pennsylvania.

Dr. Russell Wilder, Mayo Clinic, Rochester, Minnesota.

Dr. Alfred Blalock, professor of surgery, Johns Hopkins Hospital, Baltimore, Maryland.

Dr. Joseph C. Doane, York and Tabor Road, Philadelphia, Pennsylvania.

Miss Marion G. Howell, R.N., president, National Organization for Public Health Nursing, 1790 Broadway, New York City. Represented by Miss Marian Sheahan, vice-president.

Dr. Arthur F. Chace, president, New York Academy of Medicine, 525 Park Avenue, New York City.

Dr. H. M. Marvin, Yale University, 303 Whitney Avenue, New Haven, Connecticut.

Dr. Louis Hamman, 9 East Chase Street, Baltimore, Maryland.

Dr. Wallace C. Yater, professor of medicine, Georgetown University, Thirty-Fifth and N Streets, N. W., Washington, D. C.

Examinations by the American Board of Obstetrics and Gynecology

The general oral and pathological examinations (Part II) for all candidates will be conducted at Pittsburgh, Pennsylvania, by the entire board from Wednesday, May 19, through Tuesday, May 25, 1943. The Hotel Schenley in Pittsburgh will be the headquarters for the board, and formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates. Hotel reservations may be made by writing direct to the hotel.

Candidates for re-examination in Part II must make written application to the secretary's office not later than April 15, 1943.

The office of the Surgeon General (United States Army) has issued instructions that men in service, eligible for board examinations, be encouraged to apply and that they may request orders to detached duty for the purpose of taking these examinations whenever possible.

Candidates in military or naval service are requested to keep the secretary's office informed of any change in address.

Deferment without time penalty under a waiver of our published regulations applying to civilian candidates will be granted if a candidate in service finds it impossible to proceed with the examinations of the board. Applications are now being received for the 1944 examinations. For further information and application blanks, address Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

WOMAN'S AUXILIARY

The Doctor's Wife in Defense

Within the past fifteen months a large portion of the time of every woman has been given to defense work of some kind. The doctor's wife has, with all her responsibilities, done her full share. Many of the outstanding services in defense work have been done by physicians' wives.

In Memphis a doctor's wife is in charge of the surgical bandage unit, one has the sewing unit under her supervision, another is chairman of nurses' aid courses. The Shelby County president, Mrs. Jewell Dorris, is chairman of the committee for recruiting nurses for the Army and Navy for twenty-one counties. All the members of the Shelby County Auxiliary are doing splendid work in Motor Corps and all other branches of Red Cross. They have also given $100 to the Mid-South Eyesight Conservation Committee.

Davidson County can boast that her doctors' wives have responded almost 100 per cent to the calls for assistance in various lines of defense. There have been eighteen courses taught in home nursing and nurses' aid. They have to their credit over 1,800 hours in surgical dressings, 1,534 hours in sewing, 4,923 hours in mass feeding and canteen work.

Davidson County Auxiliary members have purchased over $22,900 in defense bonds.

One of our members gives two hours each week on the wards at General Hospital.

Another examines W.A.A.C.'s for service for two hours each day. One of our physicians' wives is psychologist at the Classification Center, giving full-time service six hours each day six days a week. One of the most outstanding services to Red Cross has been given by Mrs. Frank Fessey, who was chosen special field representative for the Red Cross by Mr. Norman Davis and Mrs. Archibald McLeich. Mrs. Fessey gives her time unreservedly to this work. A Davidson County member has also done outstanding work, being chosen district chairman of Block Defense, representing our Auxiliary. A dayroom has been furnished for the soldiers at the Classification Center and the Auxiliary is now raising funds for an emergency surgical kit which is to be placed where it is most needed.

Outstanding in the field of defense is the work of Mrs. R. N. Herbert, who is southern district chairman for the American Society for the Control of Cancer. The work of this group is one of education, and since failure to attach sufficient importance to recognized signs and symptoms accounts for a great part of delay which causes cancer to rank second only to cardiorenal disease in mortality statistics, it is plain that ignorance of the disease is manifest, and we are indebted to Mrs. Herbert for her untiring efforts in this defense service.

Blount County has a splendid report in canteen work, sewing, knitting, surgical dressings, working on rationing boards, and selling War Bonds and Stamps.

The Madison County Auxiliary members have also purchased $950 in War Bonds and Stamps.

In the Stone's River Academy Auxiliary knitting has been the outstanding achievement. Approximately 250 sweaters, 66 helmets, 45 mufflers, and 42 pairs of wristlets have been knitted.

Knox County can certainly be proud of the work of the Knoxville women in defense. They have given over 1,000 hours in knitting and 1,000 hours in surgical dressings.

They have worked at all phases of Red Cross and defense work, emergency feeding of soldiers, canteen, nutrition, first aid, and many of the Knox County Auxiliary members had their 100-hour Red Cross Service Pins before Christmas.

Of course, it is understood that this report cannot be complete, as the picture changes and the report grows day by day, but "The Doctor's Wife" is certainly doing her part in "defense."

MEDICAL SOCIETIES

Davidson County:

February 23 "Hyperparathyroidism," by Drs. N. S. Shofner, E. H. Barksdale and Eugene M. Regen. General Discussion.

March 2—Major Arthur McCarty, chief of the Medical Service, Nashville Air Center, was the guest speaker and spoke on, "In the Army Now."

Hamilton County:

The following papers have been read before the Hamilton County Medical Society:

February 4—"General Consideration of Sinus Disease," by Dr. D. Isbell.

February 11—"Plasma," by Dr. W. E. Van Order.

February 18—Paper by Dr. John B. Hocker.

March 4—Paper by Dr. Harold J. Starr.

March 11—"Report on Some Interesting Urological Cases," by Dr. G. Madison Roberts.

Knox County:

February 16—"Review of 1942 Literature on Metabolism," by Dr. Eugene Haun.

"Functions and Pathology of the Pituitary Gland," by Dr. E. M. Edington. Discussion by Dr. C. C. Smeltzer and Dr. Robert Young.

March 2—"Version," by Dr. G. W. Stone. Discussion by Dr. Kyle Copenhaver.

Studies in "Human Fertility." Sound movie.

OTHER MEDICAL SOCIETIES

West Tennessee Medical Association

Kindly give notice in your next issue of the Journal that the meetings of the West Tennessee Medical Association have been deferred for the duration for the usual reasons—transportation, too busy, etc.

George R. McSwain, M.D.,
Secretary.

ABSTRACTS OF CURRENT LITERATURE

ANESTHESIA

By Hugh Barr, M.D.
Medical Arts Building, Nashville

Avertin Nitrous Oxide Anesthesia in Thyroidectomy. Kenneth M. Heard. Canadian Medical Association Journal, September, 1941.

Thyroid surgery anesthesia presents certain difficulties not encountered in other surgery. It should be pleasant, harmless to metabolism, and to the myocardium, produce relaxation, nonirritating, and cause no infringement on the oxygen intake. Avertin is not used as an anesthetic, but as a sedative. Large amounts of oxygen can be used with the nitrous oxide.

Ninety per cent of an entire group were maintained in a very satisfactory condition. The large amount of oxygen available with avertin safeguarded the patients against obstructed airways. Acute obstruction necessitated use of intratracheal catheter. Best results were obtained when the injection of avertin was given thirty minutes before operation. It is much better to administer sufficient avertin than to depend on reinforcement of a smaller dose with morphine.

DERMATOLOGY

By C. M. Hamilton, M.D.
Doctors Bldg., Nashville

Edema of the Genitalia Complicating Resin Dermatitis Due to Underwear. Bernard B. Alperstein, M.D.; Irving Sherman, M.D.; and Bernard K. Sherman, M.D., Brooklyn. Archives of Dermatology and Syphilology, December, 1942.

Contact dermatitis, presenting unusual features, caused by resin finish in unlaundered underwear, in twelve cases, is described. The shorts worn by these patients were manufactured by different companies, but the "backfiller" was the same in all cases. Samples of the resin, which was the same reported by Schwartz, were supplied by a chemical house.

The eruption was maculo-postular and confined to the skin, covered by the shorts. Giant wheal-like formations involved the genitalia. In some of the cases the eruption spread widely over the trunk and extremities. Some regions became pustular. In three cases large abscesses developed. Many were extremely pruritic.

In all the cases there was a peculiar edema of the genitalia. The scrotum was greatly enlarged, to the size of a grapefruit in some instances. The skin was thickened and moist. The testes were swollen, but the edema did not involve surrounding tissue. In seven patients the penis assumed peculiar shapes due to localized edema. It was not enlarged as a whole in any case, but large segments were observed. In many cases the edema of the gland penis caused some obstruction to the flow of the urine. The edema lasted from three weeks to three months. Blood studies were negative.

Twelve patients with identical unusual edema of genitalia with localized areas of dermatitis have been described. Shorts finished with a new resin caused the dermatitis in each case. Each reacted to patches of unlaundered shorts and to the resin, but none of them were sensitive to his laundered underwear.

INTERNAL MEDICINE

By R. B. Wood, M.D.
By D. R. Thomas, M.D.
Medical Arts Building, Knoxville

Chemotherapy of Chronic Ulcerative Colitis. Moore A. Mills, M.D., and Thomas T. Mackie, M.D., New York, New York. American Journal of Digestive Diseases, February, 1943.

Our present attitude toward ulcerative colitis is that it is a polyvalent disease, caused by a variety of organism of mixed pathogenicity and influenced later by multiple factors as: mixed deficiency states marked disturbances of intestinal physiology as motor function, various psychogenic factors, focal infections of nose and throat, and the development of allergic states.

Necessarily successful management must be based on an exhaustive study of each case to determine the presence and magnitude of the above-mentioned factors. The control of intestinal infection has heretofore been difficult and limited to the local applications of medicaments by Clysma which usually aggravates the hyperirritable colon. The advent of the sulfonamides has opened new possibilities in attacking the bacterial factors.

The present articles deal with the use of sulfathiazole, sulfaguanidine, and sulfadiazene in 109 cases from the Roosevelt Hospital Clinic. The result of this study revealed that seventy-eight per cent of all cases acute, chronic, showed marked improvement. Sulfadiazene proved to be the drug of choice for all variety of cases. Sulfaguanidine was of definite benefit in the majority without diar-

rhea and should be over prolonged periods. None of the drugs should be in any way considered as specific in this disease and no case can be considered as cured by the drug.

Approximate Insulin Content of Extemporaneous Mixtures of Insulin and Protamine Zinc Insulin. Franklin B. Peck, M.D., F.A.C.P. Annals of Internal Medicine, February, 1943.

After a review of work done by various men on modified insulin, the author presents tables to show the approximate range of insulin content in mixtures of insulin and protamine zinc insulin which have been extemporaneously prepared.

The author emphasizes that these figures are approximations only and variations may occur, depending on individual circumstances.

1 part regular insulin to 3 parts protamine zinc —10% quick-acting insulin.
1 part regular insulin to 2 parts protamine zinc —15% quick-acting insulin.
1 part regular insulin to 1 part protamine zinc —25% quick-acting insulin.
2 parts regular insulin to 1 part protamine zinc —50% quick-acting insulin.
5 parts regular insulin to 1 part protamine zinc —75% quick-acting insulin.

The adoption of "tailor-made" mixtures of regular and protamine zinc will allow most patients who are not otherwise balanced to remain in a balanced state. Those diabetics who persistently shock during the night and are glycosuria by day will probably remain sugar and shock free on the use of some of the above mixtures.

Duodenal Tube Biliary Tract Drainage. Dr. B. B. Vincent Lyon, M.D., Sc.D. American Journal of Digestive Diseases, February, 1943.

The author often presents the case history and a twenty-five-year "follow-up" report upon Anna Ingber, who was the first patient upon whom was first tried duodenal drainage as a therapeutic agent in the treatment of biliary tract disease. From a study of this case, the author comes to these conclusions:

1. Cooperation between surgeon and medical services is imperative.

2. The "sick liver" has a great "margin of reserve."

3. Present liver function tests are inadequate for the accurate appraisal of an acutely damaged liver.

4. Chronic liver disease has a tendency to progress pathologically and to symptomatically relapse. Frequency of relapse and the progress of the disease can be reduced by appropriate treatment.

5. Duodenal tube biliary drainage of the liver possesses great potential usefulness, especially in those in whom surgery is not indicated.

6. Less error is made if too frequent drainage is done rather than too far apart.

7. Gall sand in duodenal contents is an indication for more frequent drainage.

8. The term gall-bladder drainage should not be used, but biliary tract drainage.

9. Even the judicious use of this method will not preclude surgery. If cases suitable for its use are selected, the patient cannot lose, but the pendulum should not be allowed to swing too far.

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

Missed Abortion: An Analysis of Results Following Conservative Management. Samuel Lubin and Richard Waltman. American Journal of Obstetrics and Gynecology, January, 1943, Vol. 45, No. 1, p. 89.

A series of eighteen cases of missed abortion is presented where the dead ovum was retained for at least twenty-eight days and up to 196 days.

At the present time there still exists a difference of opinion as to the best method of treatment for a woman who has a retained dead ovum. Some advocate immediate emptying of the uterus when the diagnosis is made, while others advise waiting a reasonable period of time before attempting delivery. In many cases this so-called "reasonable length of time" is not defined in limitation. Those who advocate immediate emptying of the uterus do so because of fear of the development of hemorrhage, infection, or toxemia. The authors have not encountered any of these potential dangers in following a waiting policy.

Theoretically, the surgical evacuation of the uterus in cases of missed abortion appears to be physiologically unsound. The hard, closed cervix encountered in these cases does not lend itself readily to dilatation as does the normal pregnant cervix. In addition, the uterine wall is usually thin and readily perforated, and the musculature is not responsive to the ordinary oxytocic drugs, such as quinine, ergot, or pituitrin. Therefore, the physiologic requirements which are necessary to expel the products of conception in missed abortion are evidently lacking. In view of this, it would seem justifiable to await nature's correction of the altered physiology rather than to attempt interference by a method which is incompatible with sound physiologic principles.

The theoretical difficulties which might be encountered in surgical evacuation of the uterus, namely, forcible tearing of the nondilatable cervix and bleeding from a noncontractile uterus, can be averted by not resorting to interference from below. The awaiting of the spontaneous onset of labor is, the authors believe, the better method of approach since at that time the uterine tonus is restored and contractions under the influence of oxytocics prevent excessive bleeding. The hormonal method of induction is not untimely and may be attempted with estrogens first, to be followed later by pituitrin. Some patients will go into labor

with the estrogens alone. If this fails, perhaps progesterone can be utilized along with the estrogens. In addition, in spontaneous expulsion the entire ovisac is generally expelled, whereas when surgical procedures are resorted to, the fragments of the gestational contents are torn away piecemeal.

The Unengaged Vertex in Full-Term Primiparas. Abraham B. Tamis and Jacob Clahr. American Journal of Obstetrics and Gynecology, January, 1943, Vol. 45, No. 1, p. 39.

Engagement is defined as the mechanism by means of which the presenting part enters the pelvis. When completed, it signifies the passage of the greatest diameter of the fetal head through the superior strait. The most dependent portion of the head should then be felt at or slightly above the level of the ischial spines.

In primiparas engagement of the vertex generally occurs within two weeks of delivery, but it may not take place until active labor sets in. Therefore, any primipara with an unengaged head in the last two weeks of gestation should be suspected of having a fetopelvic disproportion and should be carefully observed during the early phases of labor to determine whether or not the presenting part is fixed at the inlet or is entering the pelvis.

The safest attitude to assume when confronted with an unengaged vertex presentation in a primipara is that a cephalopelvic disproportion exists. The patient should be considered as a potential candidate for a Caesarean section and guarded accordingly.

If obvious disproportion exists, a Caesarean section is indicated without further delay unless the fetus is dead or abnormal.

If an obvious disproportion is excluded, the patient may then be permitted to continue in labor. Since the average primipara dilates fully within twenty-four hours, it is reasonable to expect that engagement will occur in this interval. This actually happened in fifty per cent of this series of patients with cephalopelvic disproportion of the apparent or relative type.

The prognosis for patients with no true disproportion is exceedingly good, even though labor may be somewhat prolonged.

The prognosis for patients with relative cephalopelvic disproportion who engage in less than twenty-four hours of labor is as good as in a comparable group of cases that are engaged at the onset of labor. On the other hand, if engagement fails to take place within this interval, and the trial of labor is continued, the fetal mortality rate will rise precipitously due to the protracted labor, to difficult forceps applications, and to intrauterine infection. The fetal mortality in this series for such cases was 41.6 per cent.

This tremendous loss of babies raises the issue as to whether these primiparas should be permitted to have a trial labor of over twenty-four hours.

Abdominal Caesarean section will prevent this excessive loss of babies, but increases the risk to the mother. This risk is a very considerable one if the classical type of operation is performed routinely. Consequently, the adherents of the classical Caesarean section teach that the trial of labor be restricted to less than twelve hours, especially when the membranes are ruptured, or else there will result a high maternal mortality due to peritonitis. Possibly the intraperitoneal use of sulfanilamide may reduce the incidence of peritonitis to a level where the classical type of operation may be resorted to with greater safety.

At the present time, if the low segment (two-flap) operation or other completely extraperitoneal operation is performed after twenty-four hours of trial labor, the maternal mortality will not be much higher than that of vaginal delivery.

The onset of active labor is not always readliy determined. Many patients will have "false" or "preliminary" pains for several hours, even days, without any detectable alteration in the cervix, except possibly that of retraction. Eventually the more progressive type of labor pains set in. The onset of the trial of labor should be calculated from the time this change in the character of the labor pains occurs. If, however, true primary uterine inertia exists, it is best to do an early Caesarean section, particularly if the patient is of the dystocia dystrophy type.

Attempts to shorten the first stage by accouchement force, Duhrssen's incisions of the cervix, and bagging, hasten cervical dilatation, but do not eliminate the cephalic and pelvic factors responsible for the disproportion. These traumatic maneuvers have no place in the management of a case undergoing a trial of labor.

Intact membranes may prevent engagement when no true disproportion exists, and artificial rupture of the membranes may be safely practiced early in the first stage to encourage descent of the head. It is likewise safe to do this in cases of relative cephalopelvic disproportion if the cervix dilates fully in less than six hours. When confronted with the other groups of relative cephalopelvic disproportion, it is best to keep the membranes intact until the cervix is fully dilated or nearly fully dilated, because the failure of engagement is not the result of the buoyancy influence of the amniotic fluid. Early artificial rupture of the membranes in these patients frequently causes pressure edema of the cervix which delays further dilatation, prolongs labor, and creates maternal exhaustion.

In all cases of prolonged labor it is common practice to use sedation to avoid maternal exhaustion. When morphine was prescribed for patients undergoing a trial of labor, occasionally a temporary cessation of labor resulted. When the effects of the morphine wore off, the pains were not always as strong nor as effectual as before the drug was given. This was not observed after the use of barbiturates. It would appear, therefore, to be more preferable not to order morphine until after engagement has been completed.

The management of relative cephalopelvic dis-

proportion when complicated by organic heart disease, placenta previa, premature separation of the placenta, or toxemia of pregnancy must be modified to comply with the associated disease. It is questionable whether any trial of labor ought to be given under such circumstances.

Elderly primiparas (over thirty-five years of age) and patients with a long standing history of sterility should have a short trial of labor because of the importance of obtaining a living child, particularly if the membranes rupture before the onset of labor, or if the labor pains are irregular and ineffectual. On the other hand, if labor is active and progressive and engagement is not delayed, these patients may be permitted to deliver vaginally even though forceps assistance may be necessary.

Can the problem of fetopelvic disproportion be avoided by inducing labor prematurely? The authors had no such experience. Peel analyzed 100 consecutive cases of surgical induction of labor for real or suspected disproportion among primiparas. The stillbirth rate was 20.8 per cent and the forceps rate was 35.8 per cent. Evidently this so-called prophylactic treatment of disproportion raises obstetric problems more difficult and dangerous to solve than the one it is supposed to correct.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Epidemic Keratoconjunctivitis ("Shipyard Conjunctivitis"). Murray Sanders. American Journal of Ophthalmology, February, 1943.

This is a preliminary report on investigations into the etiology of epidemic keratoconjunctivitis. This condition broke out in the San Francisco shipyards in 1941 following a similar epidemic in Hawaii. It has since spread throughout the Pacific Coast area and has reached the east coast. The cause of the disease is unknown, although evidence points to a nonbacterial agent, a virus.

Swiss mice were injected intraperitoneally and intracerebrally with conjunctival scrapings from patients with the conjunctivitis. This was followed by mild symptoms from which the mice recovered. Brain emulsion from the second mouse passage was incubated in tissue culture of embryonic mouse brain. This produced a strain which was lethal to mice and gave rise to a pathologic picture which, though not quite unique, did not resemble that in other common virus infections. Conjunctival instillation of the mouse virus in a human volunteer produced in four days a mild conjunctivitis. When this was repeated in the same eye typical keratoconjunctivitis developed. The serum of the patient from whom the original material was obtained had a neutralizing effect on the mouse virus. A second isolation of virus has been effected, but the identity of this virus with the first has not been fully established. This is a preliminary report and further work will be done on the isolated strains of virus.

ROENTGENOLOGY

By J. Marsh Freke, M.D.
Newell & Newell Sanitarium, Chattanooga

Virus Pneumonia: Roentgenographic Characterization of Recent Virus Pneumonitis with Bronchopneumonia. Asa E. Seeds, M.D., and Morton L. Mazer, M.D. Roentgenology, Vol. 49, No. 1, p. 30, January, 1943.

In the past year the authors have seen 221 cases of nonlobar (nonpneumococcus) pneumonia. The clinical and laboratory findings correlate well with previously described groups of febrile episodes apparently due at least in part to infection with a filtrable virus; possibly one peculiar to this syndrome.

They have developed certain criteria of roentgenographic recognition of this syndrome which is as follows:

1. An infiltrative process at the onset.
   a. First progressively peribronchial from the hilum and then irregularly interbronchial; earlier in the more proximal portion.
   b. Customarily clearly definable as to limits in spite of its disregard for segmental or lobar structural limits, usually involving more than one segment and frequently parts of more than one lobe.
2. Quickly accompanied by a "cotton-wool" appearance of multiple areas of partial or semiconsolidation.
   a. This is scattered through the area of infiltration; usually distributed in a radial progression also.
   b. Frequently subsequently (six to twenty-four hours) coalescing.
   c. Occasionally eventually (twenty-four to forty-eight hours) filling approximately a whole lobe to simulate lobar pneumonia, but, so far as we have seen, always managing to present a striated infiltrative type background rather than a pure homogenicity.
   d. Usually establishing a fixed distribution for any one area in two to three days, which afterward behaves as a "unit."
3. Resolution or absorption begins.
   a. By generalized and uniform progressive (three to five days) loss of density throughout the "unit."
   b. The development of the appearance of "wire-grass" infiltration or "pseudofibrosis" (suggesting a relatively simple inverse of the developing process).
   c. Eventual progressive complete clearing of this process in five to fourteen days, usually five to eight days in cases of single "units."
4. Occasional development of multiple "units" with
   a. Subsequent definite dates of onset and individual chronology.
   b. Rarely involving nearly all visible parts of lung.

c. Usually no one unit disturbing the approximate prearranged chronology of any forestarted unit.

5. Occurring quite typically in children.

a. We recorded only one typical case under six months, but many both under and over two years.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

The Etiology of Anuria with Emphasis on Prevention and Treatment: An Analysis of Nine Cases. H. E. Kasten. Journal of Urology, January, 1943.

The anurias are classified into four main groups as follows:

1. Circulatory or prerenal.
2. Excretory or renal.
3. Eliminatory or post-renal.
4. Composite or mixed.

The circulatory or prerenal form is due to inadequate blood volume and pressure as might occur in the following:

1. Embolism of the renal vessels or pressure on the vessels from a tumor.
2. Diminished fluid intake.
3. Severe hemorrhage, diarrhea, vomiting, excessive fluid loss or advanced cardiac decompensation.
4. Fluid retention in the tissues.
5. Endocrine disturbances, such as pathology of the thyroid, pituitary or adrenals.
6. Fall in blood pressure as might occur in shock.

In a normal person the glomerular blood pressure is about ninety millimeters of mercury. This is about thirty to forty millimeters of mercury below the arterial pressure. If the arterial pressure falls below seventy to ninety and the glomerular pressure below thirty to forty the renal excretion will cease.

7. Inhibition of uninvolved kidney by obstruction in opposite kidney.
8. Vascular spasm of main vessels following splanchnic stimulation as in abdominal surgery.
9. Peripheral irritation as may occur in urethral or ureteral dilatation.
10. Anesthesia, general or spinal.

Excretory or renal type of anuria is due to inadequate secreting renal tissue, as may occur in the following:

1. Acute nephritis.
2. Extensive destruction of renal tissue from infections or calculi.
3. Poisoning from heavy metals.
4. Acute toxic condition in eclampsia.
5. Post-partum cortical necrosis.
6. Following nephrectomy where the remaining kidney ceases to function.

Eliminatory or post-renal obstructive causes; these are conditions which block the outflow of urine.

1. Blocking of the ureter by calculi, blood clots, strictures, neoplasms, etc.
2. Intrarenal type of obstruction from sulfonamide crytals blocking the tubules or with hemoglobin crystals as may occur following transfusions.
3. Lower urinary track obstruction as bladder tumors, prostatic hypertrophy or urethral stricture.
4. Pressure on the ureter from extra-genito-urinary tumors.
5. Accidental ligation of ureters.

The composite or mixed types include the cases in which more than one of the previously mentioned types are involved.

1. Bilateral renal injuries.
2. Injury to an only functioning kidney.
3. Crushing injuries to limbs resulting in muscle necrosis and renal failure.
4. Extensive burns followed by renal failure.

Case reports are given to illustrate the various types of anuria. The treatment depends to a large degree upon the type of anuria present.

In the cases of postoperative shock preventive measures are emphasized to reduce the occurrence of anuria. The active treatment of circulatory and excretory anuria consists of measures to restore adequate blood volume and blood pressure by the use of transfusions, glucose, blood plasms, adrenal cortex, vasoconstriction, and renal decapsulation.

Caution should be taken in the use of the sulfonamides and when evidence of anuria occurs the drug should be discontinued, fluids forced, and the kidneys lavaged if necessary. Blood donors should be properly matched.

In the cases of obstructive anuria, the relief of the obstruction should be obtained and also the treatment as outlined above resorted to.

An understanding of the underlying causative factors of anuria aids in the proper outline of treatment.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

Service to ALL the Nation!

The Life Insurance Companies of America have bought almost four billion dollars of U. S. BONDS since Pearl Harbor

We Are Proud to Be One of Them

The NATIONAL LIFE AND ACCIDENT INSURANCE CO.

OF NASHVILLE, TENNESSEE

887

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 4

APRIL, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

DESCRIPTION OF AN INDUSTRIAL MEDICAL PROGRAM IN AN AIRCRAFT FACTORY, Carrington Harrison, M.D., Nashville 127
EPIDEMIC KERATOCONJUNCTIVITIS, M. L. Berliner, M.D., New York 138
TREATMENT OF CARCINOMA OF THE LIP WITH SPECIAL REFERENCE TO THE MANAGEMENT OF THE REGIONAL NODES, Harwell Wilson, M.D., F.A.C.S., Memphis 140
TENNESSEE DOCTORS AND THE MILITARY SERVICE 145
EDITORIAL 151
DEATHS 153
RESOLUTIONS 153
NEWS NOTES AND COMMENTS 154
NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE 154
MEDICAL SOCIETIES 155
OTHER MEDICAL SOCIETIES 155
ABSTRACTS OF CURRENT LITERATURE 156
BOOK REVIEW 159
LISTS OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION 161
STANDING COMMITTEES 162
INDEX TO ADVERTISERS XXIII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

BACKGROUND

Three Decades of Clinical Experience

THE use of cow's milk, water, and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

DEXTRI-MALTOSE No. 1 (with 2% sodium chloride), for normal babies.
DEXTRI-MALTOSE No. 2 (plain, salt free), permits salt modifications by the physician.
DEXTRI-MALTOSE No. 3 (with 3% potassium bicarbonate), for constipated babies.

These products are hypo-allergenic

DEXTRI-MALTOSE

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons. Mead Johnson & Company, Evansville, Ind., U. S. A.

BOSTON MEDICAL LIBRARY



Wyeth's Phosphaljel is supplied in 12-fluidounce bottles*

PHOSPHALJEL WYETH'S ALUMINUM PHOSPHATE GEL

Effective in the treatment of gastrojejunal ulcer and other cases of peptic ulcer associated with a relative or an absolute deficiency of pancreatic juice, diarrhea, or a low phosphorus diet.

*Reg. U. S. Pat. Off.

Phosphaljel contains 4% aluminum phosphate.

JOHN WYETH & BROTHER • INCORPORATED • PHILADELPHIA

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M. HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI APRIL, 1943 No. 4

DESCRIPTION OF AN INDUSTRIAL MEDICAL PROGRAM IN AN AIRCRAFT FACTORY

CARRINGTON HARRISON, M.D., Nashville

Introduction

The aircraft corporation in question is one of the pseudopodia of the mushroom-like recent growth of the aircraft industry, and as such has increased rapidly in personnel and in departmental organization, and gradually in effectiveness of production. Personnel, particularly as regards skilled workers, largely imported at first, has slowly become largely native. There has been a great turnover in employees in addition to their steady numerical increase. As the greater percentage of personnel has gradually become local, the percentage turnover has decreased. This turnover in personnel plus the progressive numerical increase has thrown extra burdens and problems on the medical department as well as on other departments.

Briefly, the function of the plant, which at first was to produce observation planes, is now the production of dive bombers. With the exception of the engine, which is made elsewhere, the entire plane is produced in the plant; the plane is completely assembled in the shop and is ready for combat service when it leaves the plant. Activities carried on in the shop are therefore varied: foundry and pattern work, machine shop work, chemical treatment of metals and parts, painting, sand blasting, drilling, riveting, welding, assembly work, electrical work, etc. In such operations the principal medical problem is trauma. Occupational disease can be fairly well controlled in such work; the few specific occupational disease problems as distinct from trauma will be discussed.

In general, the purpose of the medical department is twofold: first, to place a prospective employee in a job which he is physically equipped to perform and which will not be dangerous to him or to his fellow workers because of some existing physical abnormality; second, to take care of all accidents and illnesses arising as a direct result of the performance of employees' duties. There are many manifestations of both of these objectives, the common aim of which is to keep as many people on the job as possible, performing duties of which they are physically capable.

Functionally, the medical department may be considered under seven headings:

1. Pre-employment Examinations.
2. Periodic Re-examinations.
3. Public Health and Sickness Control.
4. Personal Medical Attention.
5. Occupational Disease Control.
6. Care of Industrial Accidents.
7. Maintenance of a First Aid Corps.

I. Pre-employment Examination

First, let us consider the pre-employment examination, its purpose, how it is done,

and what is accomplished by it. Prospective employees are not seen by the medical department until the personnel department has finished with them; in other words, they are hired if the medical department will certify them as acceptable for work. A prospective employee comes to us with a record from the personnel department noting his previous occupation, amount of experience, and also outlining the specific job to which he is to be assigned.

This knowledge is of value to us in deciding whether an applicant is fit for his particular assignment.

All applicants, transfers, and rehires are required to take the same examinations as follows: A routine brief history is taken; vision is tested on the Keystone telebinocular apparatus, blood for a Wassermann is drawn and a specimen of urine is obtained. The applicant is then required to strip completely. We have found that one sentence which will make an applicant strip completely is this: "Take off all of your clothes including your socks." It is remarkable that even then an occasional applicant who has passed his intelligence test with flying colors will ask if we mean "shoes too." A complete physical examination is performed except for ophthalmoscopic and rectal examinations. After reviewing the record, we classify the applicant as follows:

(1) Acceptable, generally.
(2) Acceptable with limitations.
(3) Temporarily rejected until further study is made.
(4) Permanently rejected.

Applicants in the first category who are marked acceptable generally may work in any department and may be transferred from one department to another without further examination. There is one exception to this. Anyone who is to work in the inspection department must pass a rigorous examination for abnormalities in vision; so anyone transferring from another department to inspection must pass this special test.

Applicants placed in the second category —i. e., acceptable with limitations—may work only in the job for which they are accepted. For example, many people with mild hypertension or with heart disease without decompensation or with controlled diabetes are accepted for office or clerical work only; men with history of back strain or with abnormalities of the spine or extremities may be accepted for benchwork only or work on one level only. (Many of the jobs on the assembly line entail climbing all over the ship to heights of twenty or thirty feet; many other jobs are performed on the ground or at benches.) The limitation in each of these cases is written on the acceptance card given the applicant on completion of his physical examination. Such an individual cannot be placed at any time in a position other than that for which he was accepted.

Applicants placed in the third category—that is, temporarily rejected until further study has been made or until correctable defects have been attended to—constitute about ten per cent of the total. Inadequate vision is a common cause for placement in this category; corrective glasses can usually be obtained by these applicants, whereupon they are placed in class I—that is, acceptable generally. Again we see many small hernias, the presence of most of which the applicants are entirely unaware. Most of these hernias are the indirect inguinal type and are about the size of the distal phalanx of the index finger or smaller. These must be repaired before the applicant is accepted; in the case of highly skilled or greatly needed workers the management may accept such an applicant over the medical rejection with the understanding that the hernia will be repaired within a specified period of time. Other applicants also are sometimes accepted over the medical rejection, but only after consultation with the medical department. In this way we have been able to keep the medical standards almost as high at present as they were a year ago and still employ handicapped persons for certain specified tasks. This is done for some applicants in the fourth category (that is, permanently rejected by the medical department) as well as for some in the third. For example, we recently had a man with complete post-traumatic flaccid paralysis of the right arm. He was rejected

by the medical department with advice that the management accept him over the rejection for work as a timekeeper only.

If abnormalities of lungs are indicated by either history or physical examination, an X-ray examination of the chest is required before the applicant is accepted. Any applicant with an outstanding cardiac abnormality is not accepted until a fluoroscopy of the heart and an electrocardiogram have been performed. Applicants with goiter may be required to bring in reports of basal metabolic rates and electrocardiograms before being accepted. Applicants with bone abnormalities are required to furnish recent roentgenographic films of the part in question before acceptance. At present all special examination and rehabilitation must be carried out at the applicant's expense and at his discretion. We will soon have complete X-ray and other special equipment necessary for such diagnostic requirements.

The following is a summary of abnormalities found during examination of applicants for one week during a heavy hiring program: total number of examinations, 262; total number of rejections, 52. The rejections are broken down as follows:

Vision.—Of sixteen applicants rejected because of inadequate vision ten subsequently have become acceptable following procurement of corrective glasses.

Abnormalities of the Lungs.—Six applicants were rejected because of abnormal findings on examination of the chest. Four of these have been accepted following further study including X-ray examination of the chest.

Cardiovascular.—Ten applicants were rejected because of abnormalities of the heart and blood vessels. (This includes hypertension.) Six of these will probably be accepted for restricted work after further study.

Bones and Joints. — Eleven applicants were rejected because of abnormalities of the bones and joints of the spine and extremities. Eight of them following X-ray examination have been accepted for restricted work.

Varicose Veins.—One applicant was rejected because of the presence of the varicose veins of the lower extremities. He will be accepted when these veins have been eradicated.

Hernia.—Six applicants were rejected because of the presence of inguinal hernias and one because of a ventral hernia. All of these can be accepted when the hernias have been repaired.

Miscellaneous. — One applicant was rejected because of the presence of a potentially maligant tumor of the skin of the chest. He will be accepted when this lesion has been extirpated.

For this particular week, of the fifty-two rejectees at least thirty-nine could be employed in one capacity or another after correction of abnormalities.

Many cases accepted for restricted work only are required to put themselves under the care of the physician of their choice for continued observation and treatment; such individuals are required to furnish the medical department with letters from their physicians from time to time, assuring us that the patient is cooperating in any necessary treatment.

One of the best examples of this practice is found in our requirements for luetics. Of course, we do not accept for employment a luetic whom we find infectious. If the Kahn report on a man's blood is positive, we submit a second specimen, and if necessary a third until we obtain two consecutive reports that agree. If such a report is positive, we advise the employee of same and submit to him for signature an agreement that he will take treatment.

The employee either signs or is discharged by the management. We then advise the employee to go to his physician and tell him of our reports and request his physician to make his own diagnosis before instituting treatment. If the physician agrees that syphilis is present, we require the employee to take treatment as long as his physician considers it necessary and to bring us monthly written proof of this. An employee failing to do this is then discharged at the advice of the medical department.

TO:
In Re:
Name_____ Date_____
The above named has reported regularly for antiluetic treatment for the past month of____
_____.
_____ M. D.
Address _____
The above named has not reported regularly.
_____ M. D.
Address _____
Remarks _____

We also report all of these cases to the County Health Department and here we feel our responsibility both to the patient and the physician ends. Again we do not decide when lumbar puncture should be done, *but* if a physician thinks one should be done and has trouble convincing the patient, upon receipt of such knowledge we will require the patient to have this done.

Our attitude toward the syphilitic then is this: that he can work in the plant so long as he is not infectious or disabled, provided he is receiving treatment for the disease. We feel that this is a realistic attitude and one which should be adopted by industry in general. It is merely a specific application of our general policy regarding employment of individuals with physical defects and illness.

When we have finished with an applicant, we give him an acceptance or a rejection card. On it is briefly written, in the case of acceptance, whether there is any limitation and in the case of rejection the reason for rejection. However, we found this insufficient, for often those who had been rejected were put to work anyway because of failure of a supervisor to read the card correctly. Now the acceptance card is white, the rejection card blue, so that without benefit of color blindness no supervisor can excuse himself for allowing a man with a rejection card to go to work. This detail is an example of the double clarity which often must be used in getting the opinion of the medical department across to the rest of the plant.

PHYSICAL EXAMINATION REPORT
Date_____
Name _____
Applicant is acceptable for work (subject to laboratory report).
Limitation _____
Remarks _____
_____
Medical Division.

PHYSICAL EXAMINATION REPORT
Date_____
Name _____
Applicant IS NOT acceptable for work.
Reason _____
Remarks _____
_____
Medical Division.

(blue)

The percentage of women workers in the factory has increased greatly. In general, women can do the precision and repetitive jobs as well or better than men; they also can often perform well moderately heavy labor such as riveting. They are not used in the very heavy labor jobs.

II. Re-examinations

Another function of the medical department closely related to that just discussed is in re-examinations or periodic examinations of certain employees. Ideally, it would be well to re-examine all employees annually. This would be entirely impossible for us unless we doubled or tripled the space and personnel of the medical department. Annual examinations of all employees we feel is not particularly important in the aircraft industry because of the lack of widespread occupational disease hazard such as one finds in many other industries. We, therefore, limit our re-examinations to three categories:

(1) All keymen in the organization such as officials, department heads, foremen, supervisors, etc., are examined annually.
(2) All physically handicapped individuals are re-examined periodically—some every three months, some every six months, depending upon the abnormality in question.
(3) Those individuals who are subjected to specific occupational disease haz-

ards are also re-examined periodically. This will be discussed under occupational disease control.

FRONT OF CARD

MEDICAL FOLLOW-UP RECORD
Name ---------- Dept.------
Date of initial examination----------
Abnormal findings----------

Requirement ----------

To be re-examined----------

(over)

BACK OF CARD

Re-examination Date	Findings

III. Public Health and Sickness Control

Another function of the medical department may be considered under the heading of "Public Health and Sickness Control." We cooperate with the county and city health departments in the enforcement of regulations regarding communicable diseases and in education of employees regarding sanitation, etc. Our handling of luetics has already been described above. Again we insist that the cafeteria maintain standards necessary for an "A" rating; we further require all cafeteria employees to have examinations every three months. Any irregularities in near-by eating establishments are reported to the health authorities. We have also published in the plant paper the meaning of the various alphabetical ratings given eating establishments and have urged the employees to use this information in choosing places to dine.

Eight months ago we started a compulsory immunization program for all new employees. These immunizations are for smallpox, typhoid fever, and tetanus. Smallpox vaccination, the first typhoid injection, and the first tetanus toxoid injection are completed after the employee has gone to work. We do not require that these be given at the same time. Immunizations are given at the plant. They can be given by the applicant's personal physician. Before an applicant reaches the medical department he is given an immunization agreement to read to acquaint him with the requirement.

A prospective employee must request these immunizations of the medical department if he wishes to receive them in the plant. Also if he needs any medical attention as the result of these immunizations he must consult his own doctor.

It is surprising to me to see how few immune reactions we obtain from the smallpox vaccination regardless of the characteristics of previous vaccination scars. We see more varioloid reaction than any other kind.

The immunization program was first started on a voluntary basis. This met with but little success. We made immunization compulsory for all new employees some eight months ago as a prerequisite to going to work. At the same time with the help of the Davidson County Health Department these same immunizations were offered to all old employees, both office and factory, on all three shifts. Health officers went through the entire plant a total of nine times (one on each of the three shifts at weekly intervals for three weeks); injections were performed right by the work benches so that practically no production time was lost and there was a minimum of inconvenience to the employees. We also had a group of employee leaders go around with the immunization cart and canvas recalcitrant employees. In this way a good proportion of the old employees voluntarily received the immunizations. Complete records are kept so that when an employee leaves the company he may on request receive a list of the immunizations taken with the dates on which they were given.

FRONT OF CARD

IMMUNIZATION RECORD

Name _____

TYPHOID IMMUNIZATION

	Date	Remarks
Initial		
1.		
2.		
3.		
Stimulating		
1.		
2.		
3.		

(over)

BACK OF CARD

SMALLPOX IMMUNIZATION

Date	Result	Remarks

TETANUS IMMUNIZATION (ALUM PRECIPITATED TOXOID)

	Initial Toxoid Injection	2nd Toxoid Injection	Stimulating Injection
Date			

All of the immunization work has been done either at the request of or after consultation with county health authorities. We are greatly indebted to Dr. J. W. Lentz for his cooperation in this as well as many other matters. He was particularly interested in the smallpox and typhoid immunization, while I was most anxious to get the tetanus toxoid administered to all workers. I will go into my reason for this below in discussing industrial accidents.

As to sickness control all employees who have been absent because of sickness must secure certification from the medical department before returning to work. This has been a company rule for a long time. However, it was not enforced until recently, when we were finally able to get the management to remove from the timecard racks all clock cards of absentees. Then no one absent because of sickness could get his clock card back until he was first certified as able to work by the medical department.

FRONT OF CARD

MEDICAL DEPARTMENT

REPORT OF ILLNESS OR INJURY

Date _____

Name Dept. Badge No.

This is to certify that the subject employee is now able to return to work.

Limitations _____

Dates of time lost (inclusive) _____

Signed _____

BACK OF CARD

INDUSTRIAL—PERSONAL

Reason for absence _____

Diagnosis _____

Letter received from physician—Yes____No____

To be re-examined _____

Remarks _____

We will give or withhold certification at our discretion, frequently requiring chronic absentees to bring us letters from their physicians showing evidence of illness. If adequate proof is not forthcoming, we report to the management that, in our opinion, the employee has been absent for some reason other than sickness. In this way we hope to cut down our absenteeism which, although it is much lower than that reported in many other areas, can still be greatly lowered, I believe. At present we can thoroughly investigate only a few of the principal absentees and then only when they return to work. It would be ideal to add several visiting nurses to the staff who would call on all employees said to be absent because of sickness. This is the only way to really control absenteeism, which is a real threat to effective production in this country.

IV. Personal Medical Attention

Another function of the medical department, and one which we try to limit as much as possible, is to give a certain amount of personal medical attention to employees —that is, temporary medical assistance is given employees who become ill while at work and symptomatic treatment is given those who are suffering from minor com-

plaints. Individuals who become sick while at work are seen by the medical department and are either sent back to work or sent home with advice to see their personal physician when indicated. Workers with headaches, colds, dysmenorrhea, indigestion, constipation, etc., may go to the plant dispensary for such symptomatic relief as may be available. These cases are supposed to go to the plant dispensary on their own time—that is, before or after working hours or during their lunch periods. Anyone who wishes to go to the plant dispensary on company time must secure a pass for the purpose from his foreman; such passes should be given only for those who are legitimately ill or at least those who insist that they are ill. However, in spite of this rule, a great many unnecessary passes are given so that almost as many personal cases as accident cases are seen in the plant dispensary daily. These personal cases are seen by the nurses and are referred to the physicians' office only when either the nurse or the patient considers the complaint serious enough to warrant leaving work. Many man-hours of work are lost merely by persons who work part of the day and then leave supposedly because of sickness. (This does not include those who stay away completely because of sickness.) At present we are trying to reduce this particular type of loss to a minimum; we are now requiring all persons leaving work because of sickness to receive permission from the medical department. We withhold this permission at our discretion.

V. Occupational Disease Control

An important though not extensive function of the medical department is occupational disease control. As indicated above there are not a great many occupational disease hazards in the aircraft industry; those that do exist can be adequately controlled by safety measures and again a very small percentage of the total workers are exposed to any such hazards.

Our principal occupational hazards are found in four operations:

1. Foundry.
2. Sandblasting.
3. Painting.
4. Chemical treatment of metals.

In the foundry there is a double hazard of lead poisoning and silicosis; proper ventilation and proper use of materials reduce this hazard to a minimum; however, we examine all foundry workers for evidence of lead poisoning and silicosis periodically. Those men engaged in sandblasting are protected from silicosis by proper respirators and helmets; they must be checked for evidence of silicosis, including X-ray examinations of the chest, at least every six months. Our maintenance painters are exposed to some extent to lead poisoning; we check them every six months for symptoms and signs (including blood counts and blood smears). In the department concerned with the chemical treatment of metals the hazard of inhalation of fumes is well controlled by blowers and proper ventilation. We see an infrequent case of occupational dermatitis from this as well as from other departments.

The Tennessee state compensation law does not hold an employer responsible for occupational disease. However, the company has taken this responsibility at very little additional expense and has thereby gained much appreciation from the employees. By utilizing adequate safety measures, and by periodic re-examination of those subjected to hazards in their working environment, I think that any serious occupational disease has been prevented.

VI. Care of Industrial Accidents

Perhaps the single most important responsibility of the medical department is the care of those injured in the line of duty. For this purpose we have a single plant dispensary which is centrally located so that it is readily available to the injured. This dispensary is composed of a waiting room, general and special treatment rooms, two cot rooms, an operating room, an office, a storeroom and a washroom. One or more registered nurses are kept on duty at all times, seven days a week, Sundays and holidays, twenty-four hours a day. One or two doctors remain on call at all times.

Roughly, between nine and ten thousand visits are made by employees to the plant

dispensary monthly. Between three and four thousand of these visits are made by new accident cases. The others are made by old accident cases or nonindustrial cases. Most of these accidents are small and minor lesions, some are more serious: abrasions, contusions, lacerations, puncture wounds, foreign bodies in the eye, back strains, ankle sprains, fractures of the fingers and toes, head injuries, electric shock.

In dealing with such a large group of injuries, although most of them are minor in extent, one is confronted with several general problems.

First, there is the question of getting employees to report promptly all accidents, however small the injury involved may be. This idea must be drummed continually into their heads. No pass is required to go to the plant dispensary in the event of injury while working. Most of the employees have gradually grown to realize the importance of immediate treatment of injuries and act accordingly. We had a great deal of trouble with this at first. For example, at one time a rumor was rife that the plant was "lousy" with infected wounds and that the reason for the infection was mistreatment of wounds by the medical department. On looking up the records of all infected wounds for the preceding month, I found twenty-one such cases out of a total of three thousand new accident cases treated. I further found that in twenty of the twenty-one infected wounds the injury had been reported to the plant dispensary twenty-four hours or more after its occurrence, and that signs of infection were present in all these twenty cases when reported. The single infection occurring in an injury reported within two hours of its occurrence was in a deep puncture wound made by a small drill. With these facts a full written report was submitted to the management and no similar trouble has subsequently arisen, as the management gave these facts wide publicity which has served to insure cooperation in making the injured report promptly for treatment.

Another problem we had to overcome was the objection of many employees to our methods of treating wounds, which is essentially to irrigate thoroughly and wash all open wounds with soap and water, to apply no antiseptic to the wounds (except in some cases to sprinkle sulfathiazole powder on them), to apply sterile dressings which are not changed for three days unless the dressing becomes dirty or unless untoward symptoms develop. Quite a row was raised about this, for the workers wanted iodine or at least some colored solution poured into the wounds. When one realizes that it has taken the medical profession itself many years to get away from the practice of further damaging the surface of an open wound by the application of strong antiseptics, it is easy to see why a group of laymen would not willingly take to the idea. Many of them still are not convinced and still want iodine. However, they are convinced of this: when they come to the plant dispensary for injuries, they will accept the treatment offered without argument.

Another problem with which one is almost constantly confronted in dealing with a large group of dirty wounds is the question of protection against tetanus. Obviously tetanus antitoxin could not be given all these patients for all of their wounds. For a long while our policy was to give tetanus antitoxin only to those cases showing signs of pyogenic infection when re-examined twenty-four hours or more after the injury or to those cases with very deep or very dirty wounds, especially those in which the presence of foreign body could not be ruled out.

We realized that such a policy was by no means foolproof and we also still had to give tetanus antitoxin to a considerable number of cases; again we had many cases of serum sickness of varying severity following use of antitoxin, but fortunately no cases of anaphylaxis. All of our cases of serum sickness have developed reddening and itching either at the site of skin testing or at the site of the subcutaneous injection twenty-four to forty-eight hours before getting any systemic symptoms or signs. We feel that by instituting treatment when this first local erythema and itching occur, we have been able to alleviate or abort many cases which might otherwise have gone into

full-blown serum sickness. Because of the constant danger of tetanus in some wound of a patient who had not received tetanus antitoxin and because of the many cases of serum sickness developing in those who do receive antitoxin, we were finally able to convince the management that tetanus toxoid should be given all employees. As far as I know, we were the first industrial concern to institute this practice. It cost the management an initial outlay of five thousand dollars for the toxoid alone. They were not so much concerned with this as with the complaints expected from the employees when required to take it. This was handled by making the taking of the toxoid as far as the old employees were concerned, more or less voluntary as described above; of course, new employees offer no difficulty, as they will agree to anything just so they can get to work. So the entire plant is gradually becoming immunized with tetanus toxoid, and we are giving less and less tetanus antitoxin.

In looking over an analysis of the injuries certain groups of wounds stand out as our chief consideration.

In one month chosen at random there were two hundred fifty puncture wounds. These are treated as described for wounds in general and are followed closely. If signs of infection develop, sulfathiazole is given by mouth. We have not had to hospitalize any case because of infection. All of these were cleared up with the use of sulfathiazole usually within twenty-four to forty-eight hours.

During the month referred to above there were ninety lacerations of varying degree. Any required suturing is performed in the operating room of the plant dispensary. All wounds requiring sutures are closed with fine interrupted silk. Divided tendons of the fingers and toes are sutured with fine nylon or silk.

We see roughly twenty back strains a month of varying severity. Time will not allow extended discussion on this subject. Suffice it to say that X-ray films of the spine and sacroiliacs are made in all such cases, hospitalization is often necessary for diagnosis or treatment. Those who are allowed to remain at work are given jobs seated, and are permanently transferred to other departments when necessary. Most of these back strains occur in individuals who show some pre-existing abnormality on X-ray examination. We plan eventually to get X-ray films of the spine on all men hired for handling of heavy materials. We have not found it possible to pick up on physical examination many of the minor abnormalities of the spine which predispose to back strain.

We see many simple fractures of the phalanges of the fingers and toes. Strangely enough, we hardly ever see one with any displacement. Their treatment is, therefore, simply immobilization on a splint for three weeks followed by physiotherapy to insure a quick return of a full range of motion of contiguous joints. Those with fractured toes and for that matter with mild ankle sprains are given crutches and work seated. We try to keep them on the job as long as they are not having pain if we do not think it injurious to them to stay. We usually have six or seven men on crutches at work all the time.

Another group of cases which cause considerable trouble are those with foreign bodies in the eyes. During one month, for example, we had two hundred sixty-one such cases. We took care of about two hundred forty of these in the plant and sent about twenty of them to ophthalmologists. I know of no way to cut down on the number of these cases except the more extensive use of goggles which most employees dislike intensely.

We also have quite a number of cases of electric shock from time to time. Most of these are sustained in drilling or riveting because of carelessness; few of them are severe. One fatality has occurred from an electric shock, resulting from direct contact with the main power line. We have had no other cases of electric shock requiring any special treatment other than rest and sedation.

During the month of December, 1942, we had fifty-five cases of burns, all minor first degree burns. These are treated by thor-

ough cleansing and the application of sulfathiazole ointment. No infection has occurred in any of the burns so treated.

VII. First-Aid Corps

A discussion of the medical program would not be complete without a brief description of the First-Aid Corps. The management requested me to organize such a corps about a year ago for use in the event of an outside emergency such as sabotage or a bombing attack. We now have a corps of some two hundred fifty trained persons who have taken twenty to thirty or more hours of instruction. The corps is divided into squads, each of which is assigned to one of the ten so-called first-aid posts scattered over the plant. These posts are equipped with generous first-aid kits, stretchers, blankets, and tourniquets. This corps and its material are not used for ordinary factory accidents. They are used, however, in the case of severe factory accidents requiring immediate attention or those that require stretcher-bearing. Actually the lives of three workers have been saved by the immediate and proper first-aid care given by members of the First-Aid Corps during the past year. Complete plans for coordination of this corps with the County Civilian Defense Organization in the event of a large scale emergency have been made.

In closing I would like to make a few remarks on the relationship of the industrial surgeon to his work. There are three types of industrial surgeon-management relationships. First, there is the physician who maintains a private office where he receives for treatment any patient sent to him by the company with which he is dealing. This relationship is a well-established one and should offer no difficult problem in itself to the physician. Another type of relationship is found when the doctor becomes an employee of the company, running his medical department as one of the regular departments of the company. The third type of relationship, which is the kind I have, is found when the physician has a contract on a cost-plus basis to provide services to cover the medical responsibilities of the company to its employees. This type of relationship has many advantages; one must deal in industrial medicine with officials of the management, with the safety department, employee committees, the factory foremen and supervisors, the legal department, and the compensation insurance company; the physician is in a much better position to deal with these various groups of laymen if he is acting as an independent agent rather than as an employee of the company, and in such dealing it should always be the earnest endeavor of the physician to maintain the doctor-patient relationship and to firmly close the door on anyone who tries to infringe upon this relationship.

Plans for extension of this service of the medical department in the immediate future include the following:

1. Regarding nutrition: formal consultations are to be held by the director of the cafeteria with a dietitian in order that one meal a day eaten by most employees at the plant will be a well-balanced one. Accomplishment of this should be an important step toward providing adequate nutrition regardless of what is eaten at home.

2. Roentgenographic equipment is ready for installation; roentgenographic examination of the chests for all employees is planned.

3. An extensive exercise program for sedentary workers is being organized.

4. Records of absenteeism because of sickness will be turned over to the State Health Department for complete analysis and further investigation.

Summary

1. *Pre-employment Examinations.*—Complete physical examinations are given all prospective employees; recommendations are made concerning the correction of abnormalities; recommendations are made concerning placement as regards physical limitation.

2. *Re-examination of Certain Employees.*—Keymen in the organization, such as officials, foremen, supervisors, etc., are re-examined annually. Also all physically han-

dicapped individuals are re-examined periodically.

3. *Public Health and Sickness Control.*—Immunization of employees against typhoid fever, smallpox, and tetanus (lockjaw). Cooperation with city and county health departments in the control of communicable disease and in education of employees regarding sanitation, etc. Certification for return to work of employees absent because of sickness. Medical investigation of principal absentees.

4. *Personal Medical Attention.*—Medical assistance is given employees who become ill while at work or who are suffering from minor complaints. Also advice is given regarding more extensive care of personal illness when this is needed.

5. *Occupational Disease Control.* — Hazards of occupational diseases are investigated and the employees subject to any such hazards are examined periodically. Recommendations are made concerning the necessity of the elimination of such hazards.

6. *Treatment of Industrial Accidents.*—Complete care of all injuries arising from industrial accidents is given. When hospitalization is necessary care of such cases still remains the responsibility of the surgical director.

7. *First-Aid Corps.*—Maintenance of an adequate First-Aid Corps for on-the-spot treatment of severely injured employees and or for use in event of an outside emergency, such as a bombing attack or sabotage. This corps has been coordinated with the local Civilian Defense Unit.

EPIDEMIC KERATOCONJUNCTIVITIS*

M. L. BERLINER, M.D., New York

In 1939 Zur Nedden reported 200 cases of a rapidly spreading form of acute conjunctivitis associated with corneal lesions which occurred in Dusseldorf. The same year Schneider published an account of 150 cases of this disease which he had seen in Munich. Two years later an epidemic occurred in Oahu, Hawaii, and was reported by Holmes. Accounts of similar epidemics have come from India and from Tasmania. An epidemic of this condition has also occurred on our own west coast in the fall of 1941, and descriptions of these cases recently have been published in the medical literature.

The German writers emphasized the epidemic nature of the condition, the severe conjunctivitis, the corneal lesions, which often could be seen only with the biomicroscope, and the presence of adenopathy. They called the condition keratoconjunctivitis epidemica.

Epidemic keratoconjunctivitis is characterized by sudden onset with pain like that caused by a foreign body in the eye, excessive lacrimation, and marked edema. On the second or third day swelling of the preauricular node occurs; this may or may not be painful and generally subsides within a week. Although in the first few days secretion is minimal, later it may become profuse, and actual membranes, dirty gray in appearance, may form. Removal of these membranes may leave raw bleeding points. In about half the cases the fellow eye becomes involved after the first week.

As a rule, the acute symptoms begin to abate at the end of the second or the beginning of the third week. The swelling and secretion diminish, leaving a thickened and reddened mucosa that persists, owing to residual folliculosis. This may continue for from four to eight weeks before complete resolution occurs. About the time the acute symptoms subside more than half the patients complain of blurring of vision. This results from the presence of small discrete grayish infiltrates that occupy the pupillary area and are located in the basal layer of the epithelial cells or in Bowman's zone. At no time is there any visible reaction in the anterior chamber.

Beginning late in December, 1941, I had occasion to see about eighteen persons having this type of conjunctivitis. In nine instances the infection spread to the opposite eye, and in fourteen corneal opacities appeared, reducing the vision on an average to about 20/50. As time went on the vision gradually improved, and in most instances after three months from the time of onset the spots became less opaque; in ten cases the vision improved to 20/20 or to 20/20—. In four cases the spots were very small and no evidence of their presence could be seen after three months. In three cases the corneal spots were seen on the third day following the onset of the conjunctival congestion. In one case these lesions assumed polymorphous forms rather than the usual circular shape, appearing as short, irregular lines.

By retroillumination the corneal surface resembled that seen in mild keratoconjunctivitis sicca, although no filaments were present. In the early stages the corneal lesions can be stained with fluorescein; then they frequently have a pyriform shape, the tapering greenish stained ends coming to the surface of the tear-film line. Later the connections with the surface epithelium become lost and after two or three weeks they are found in the deepest (basal) epithelial layer as circular and granular lesions. At times they appear to lie between the epithelium and Bowman's zone. In this later stage several unsuccessful attempts were made to stain them by repeated instillations of fluorescein over a period of twenty minutes.

Biomicroscopic examination of the palpebral conjunctiva during the height of the acute stage revealed rows of closely-packed hemispheric follicles interspersed with oc-

*Reproduced from the American Journal of Ophthalmology, January, 1943, by the kind permission of the editor.

casional papillary formations. At times, marked chemosis masked the presence of follicles. This was particularly marked in the lower lid and cul-de-sac. The bulbar conjunctiva was injected and chemotic. In the subacute stage the follicles gradually diminished in size, but did not completely disappear until at least two months after their initial appearance. Likewise, the small discrete corneal opacities, which were made up of fine whitish granular dots, became grayer and thinner as time went on, and in four instances they could no longer be seen after three months.

It would seem from the host of conjunctival conditions in which punctuate corneal infiltrates occur that these lesions are not specific for any particular condition. In contrast to other tissues the natural transparency of the cornea permits the observation of their formation and resolution. They are probably intracellular or extracellular coagula or precipitates caused by tropic disturbances. Such punctuate changes are commonly seen following burns with acids or alkalies, traumatic injuries, bacterial and viral infections, and in allergic conditions. As is the case with corneal infiltrates generally, the tendency toward absorption and clearing is more marked if the precipitates are small and not too closely packed. However, it is usual to find that they fail to clear entirely.

Although this condition bears similarity to Beal's type of conjunctivitis, it differs in that it is much more severe and has corneal complications.

In a personal communication Doctor Swick of this city informs me that he has recently seen twenty-two cases, twelve of which showed the typical corneal changes. In six of the latter the vision at the present time is reduced to 20/40 and in the remaining six the vision has improved to 20/20—.

Bacteriologic studies by separate workers have uniformly proved negative. The general feeling is that the condition is due to a virus infection. In a report from Doctor Thygeson, he says, "The cases which we have seen, including the one you sent up, have shown negative bacteriologic findings, but all have shown a mononuclear-cell exudate. Two of the cases have suggestive basophilic inclusions in the cytoplasm of epithelial cells, but this finding has not been consistent enough to be significant. There has been no transmission to any of the ordinary laboratory animals, but there have been a few apparently successful transmissions intracerebrally in mice producing meningioencephalitis, but it has not been possible to maintain any of these in series. Doctor Sanders is now attempting to obtain a strain which can be maintained in mouse and tissue culture, but has not as yet been successful. I feel that the results, though negative, definitely suggest a virus etiology."

Therapy usually employed for conjunctivitis has proved of little benefit in these cases. Silver nitrate and copper increased the discomfort of the patients and produced a more profuse exudate. The silver proteins had no apparent effect. Sulfathiazole and sulfadiazine, administered both locally and by mouth, were likewise of no value. The only measures I have found, which at least give some relief to the patient, are local irrigations with a weak solution of sodium bicarbonate and application of cold compresses. After the acute symptoms have subsided, dionin has been used in treating the opacities.

TREATMENT OF CARCINOMA OF THE LIP WITH SPECIAL REFERENCE TO THE MANAGEMENT OF THE REGIONAL LYMPH NODES*

HARWELL WILSON, M.D., F.A.C.S.,† Memphis

Carcinoma of the lip is a common type of malignant neoplasm among individuals in the latter decades of life. Since the span of life is constantly being extended, the management of this lesion is becoming of increasing importance. Due to its frequency of incidence and because of its superficial location, one might assume that the management of lip cancer at the present time would be well standardized and the results obtained therefrom superior as compared with the management of certain other malignant tumors such as carcinoma of the breast and carcinoma of the rectum. Such, however, is not the case. This presentation is essentially a plea for a more widespread adoption in the treatment of cancer of the lip of certain well-established principles of cancer therapy which have been generally applied to other regions of the body. Fundamentally, these principles include eradication of the primary tumor and the proper management of the areas of potential metastases—in this case the regional lymph nodes.

Types of Cancer

The squamous cell carcinoma is decidedly the most frequent type of tumor encountered. Characteristically, it appears on the lower lip of an elderly man. This tumor grows by direct extension and invasion, and also characteristically metastasizes to the regional lymph nodes. The submaxillary and submental nodes are involved first. Later the nodes of the parotid region and those of the deep cervical chain may be involved. Lesions in the mid-line may give rise to bilateral cervical metastases. Also a lesion located on one side of the mouth may at times metastasize to nodes in the opposite side of the mid-line.

The basal cell carcinoma is found almost entirely in the upper lip. This tumor usually grows much slower than the squamous cell tumor by direct extension and local invasion. While lymph node metastases may occur, such extensions are relatively uncommon in basal cell tumors.

The transitional cell tumor may occur on either upper or lower lip, and is considered to be somewhere between the two types mentioned above as regards local malignancy and tendency to metastasize. Certainly in tumors of this type more attention should be given to the possibility of regional node involvement regardless of whether it occurs on the upper or lower lip.

Treatment of the Local Lesion

The first step in treating cancer of the lip should consist of making a biopsy. This definitely establishes the diagnosis and also gives some evidence as to the degree of malignancy with which one is confronted. As a result of this information, a radical type of treatment may be instituted which offers the patient the chance of cure he deserves. In many instances a diagnosis can be made without microscopic examination. However, today, when tissue diagnosis is so readily obtained, there is no place for treating such cases without the accurate knowledge afforded by the microscope. Just as a patient should not be told he has syphilis and subjected to the indicated treatment for that disease without making a serological test, so the patient with a lip tumor should not have treatment given until the benefit of information from a biopsy is obtained. I never have seen evidence of any harm result from a biopsy of such a lesion when adequate treatment has been subsequently given. The procedure is recommended as a routine by almost everyone writing on the subject.

There has been some controversy as to whether the local lesion is best treated by surgery, X-ray, or radium. The general opinion at present seems to be that the local lesion may often be cured by any of these methods if properly carried out. In my opinion, neither method should be used

*Read before the Tennessee State Medical Association, Memphis, April 14, 15, 16, 1942.

†From the Department of Surgery of the University of Tennessee.

to the complete exclusion of the others, but each case should be treated by the method best suited to it as determined by the clinical and pathological findings.

In many lesions of small or moderate size complete excision offers an easy and quick method of ridding the patient of the primary disease. Where the tumor is of only moderate size and is located near the midline, some form of the "V" incision with repair often gives a good cosmetic result. If the lesion is located nearer an angle of the mouth, a plastic procedure which preserves the symmetry of the mouth is usually advisable. The author, after excising a triangular area of tissue containing tumor from a lower angle of the mouth, has found it useful to widen the mouth and then to excise a similar isosceles triangle from the upper lip. The mucous membrane from the upper triangle is preserved, being turned down as a flap over the widened portion of the lower lip. Radium needles or X-ray properly used often results in a cure of the primary lesion. While good cosmetic results often follow the use of these methods, still some scarring must be anticipated; for, after all, the tumor tissue must be eradicated regardless of the method of treatment selected.

Regional Lymph Nodes

At the present time proper regional lymph node management is of equal importance with and certainly offers more difficulty than the care of the primary lesion. This is because many of the patients who are cured of the primary lesion by surgery, X-ray, or radium may later die with regional lymph node metastases unless these areas are eradicated surgically. As mentioned above, irradiation as well as surgery offers good results in treating the primary lesion. This is not true as regards the lymph nodes. It is not possible at present to safely give radiation to the neck in sufficient quantities to insure ridding the patient completely of all metastatic cancer cells in this region.

It may be possible to retard the rate of growth or time of appearance of the secondary growth, but surgery offers the best opportunity of curing the patient of a potential or early metastasis in this area.

Blair[1] believes that almost all cases with proven carcinoma of the lip should be given regional lymph node dissection regardless of whether palpable nodes are present or not. He bases this belief on the fact that most of the fatalities he has observed have occurred in individuals where the primary lesion had been cured, but no attempt made to deal with regional nodes. He states that "early metastases in the neck are difficult to determine, and nothing but the passage of time will disprove their presence." Blair also cites one incidence of the appearance of metastatic lip carcinoma in a cervical node thirteen years after the cure of the original lesion.

Swinton,[5] reporting on a series of carcinomata from the Lahey Clinic, advises a routine suprahyoid dissection in all but the most superficial cancers of the lip, whether the nodes are palpable or not. In addition, he advises routine postoperative X-ray therapy.

Kennedy[3] adopts a similar view and reports forty-five suprahyoid neck dissections without a fatality.

At the Cancer Memorial Hospital in New York both surgery and irradiation are being constantly used by the same group, and the relative merits of the two methods are being evaluated. Hayes Martin[4] properly points out that irradiation and surgery should be complementary rather than competitive. He cites examples of certain cases with inoperable neck metastases which, following irradiation, became operable. Martin and Duffy,[2] however, do not feel that regional nodes should be resected unless they are found to be involved clinically and show no deep fixation in the neck. They also insist that the primary lesion must be controlled and the patient free from distant metastases. The importance of frequent follow-up examinations was stressed.

In an extensive study of the problem of lymph node management Taylor and Nathanson[6] also favored deferring regional node dissection as a routine procedure, provided a monthly or bimonthly follow-up examination could be made over a period of

five or six years. Otherwise, they favored a rather wide use of the procedure. In ordinary practice certainly we cannot be sure of such cooperation after the patient has been dismissed. Taylor[6] also stresses the inaccuracy of a clinical examination in determining true lymph node involvement, citing five cases with no palpable nodes in which metastases were proven by microscopic examination and also citing twenty cases with enlarged nodes in which fourteen cases showed no evidence of cancer by microscopic study.

Time and Extent of Regional Node Dissection

Experience has shown that it is usually safer to carry out the regional node dissection after the lip lesion has been cured regardless of whether it was treated by surgery or irradiation. This reduces the risk of each procedure and likewise reduces the incidence of postoperative neck infection, since any inflammatory process in the nodes is likely to subside following cure of an ulcerated primary lesion. The extent of the dissection done must be individualized for each patient. The patient should be in a good general condition for this procedure to be indicated. If the lesion involves the lip near the angle of the mouth, a unilateral suprahyoid dissection may be sufficient. Where the lesion is in the mid portion of the lip, a bilateral suprahyoid dissection is indicated. If nodes which are definitely cancerous are found in the submaxillary triangle, then a more extensive dissection should be done so as to remove lymph nodes of the deep cervical chain. It may be necessary to remove the sternocleidomastoid muscle and internal jugular vein in such a case.

Again it should be emphasized that some cases which seem inoperable may be rendered operable by suitable irradiation.

Summary and Conclusions

1. Biopsy should be done on all suspected cases of carcinoma of the lip to establish the diagnosis and to aid in the selection of the proper form of therapy.

2. The primary lesion should be eradicated. Often this may be accomplished by either surgery or irradiation.

3. A block dissection of the regional lymph nodes increases the likelihood of a permanent cure.

4. Follow-up observations should be made at frequent intervals and over a long period of time.

BIBLIOGRAPHY

1. Blair, V. P.: "Our Responsibility Toward Oral Cancer." Annals of Surgery, 106: 568-576, 1937.

2. Duffy, J. J.: "Cervical Lymph Nodes in Intraoral Carcinoma: Surgery or Irradiation?" American Journal of Roentgenological and Radiological Therapy, 39: 767-777, 1938.

3. Kennedy, R. H.: "Epithelioma of the Lower Lip." Annals of Surgery, 106: 577-583, 1937.

4. Martin, H. E.: "Treatment of Carcinoma of the Lip." American Journal of Surgery, 30: 215-226, 1935.

5. Swinton, N. W., and Trommald, J.: "Carcinoma of the Lip." Surgical Clinics of North America, 18: 599-603, 1938.

6. Taylor, G. W., and Nathanson, I. T.: "Evaluation of Neck Dissection in Carcinoma of the Lip." Surgery, Gynecology, and Obstetrics, 69: 484-492, 1939.

DISCUSSION

DR. C. H. HEACOCK (Memphis): Doctor Wilson's paper is timely and excellent. In general, I agree with most everything he has said. As a radiologist, I want to differ with him on one of the points that he admits is controversial. I believe that the cosmetic results are much better when the primary lesion is treated by radiation. About equally good results can be obtained by either surgery or radiation as far as eradication of the disease is concerned, but I believe that surgery should be restricted to those lesions that are so small that merely taking the biopsy would remove the growth almost in its entirety. In an article, published this year by Howes and LaRosa (American Journal of Roentgenology, 47: 39-49), they warn against combining surgery and radiation. The surgeon is too apt to make a minimal excision, depending on the irradiation to destroy the residual cancer cells and vice versa.

Doctor Wilson has properly stressed the importance of glandular metastasis. Fortunately, this does not occur early, and an analysis of most series will show that their incidence is less than thirty per cent. This low incidence certainly hardly warrants subjecting each and every patient with a cancer of the lip to a radical resection of the glands. For this same reason so-called prophylactic roentgen radiation is unwarranted.

Even when palpable glands are present, Driver only found malignancy in sixty per cent. However, if palpable glands are present when the patient is first seen, or if, as often happens, they make their appearance later, they must be treated

radically. Driver believes that nothing is lost by waiting for the appearance of the glands.

I agree with Doctor Wilson that roentgen irradiation alone is not the method of choice in dealing with the glands. For the most part and in most localities, this must be done surgically. The method of interstitial radiation by long needles of low radium content as advocated by C. L. Martin (mentioned in author's bibliography) will prove superior to any other method, but few have access to this type of needle and few have the skill and experience of Martin. So, for practical purposes, we will agree that glandular metastasis should be treated surgically.

Before a block dissection, Doctor Wilson states that we should be sure (1) that the primary growth is controlled and (2) that the general condition of the patient is good. I believe a third should be added. The glands should be movable. If they are fixed, it means that the malignancy has penetrated the capsule and cannot be eradicated. The possibility of distant metastasis should be eliminated as completely as possible.

Some of you are probably wondering what results may be expected in cancer of the lip treated by the methods we are discussing here today. Analysis of series recently reported averages about eighty per cent successful results.

DR. H. C. CHANCE (Cumberland Gap): I do not want to take much of your time, but I have had a long run with this kind of work, and I was glad to see that the doctor did not feel like guaranteeing anything along this line. Every man who has worked at it a long time has worked out his own problem to the best satisfaction of himself.

The first thing I will touch will be the biopsy. I learned a long time ago that a biopsy could be dangerous unless you are ready for immediate treatment, so I get my biopsy now with a cautery, and at the same time, or before, give one to two full erythema doses of X-ray. Then I feel safe on my biopsy, but I do not feel safe to take the biopsy and treat the patient the next month after I get a report. I do not do the microscopic work myself; I have to send it off and get a report.

If we got these cases early enough, we would not need to worry about the glandular involvement below, and I say glandular involvement—I do not mean glandular infection. Of course, a great many times it is simply an infection even after you get the enlarged glands. I believe some of the best men we have and who have had the most experience claim that about sixty per cent of palpable nodes are cancerous. Martin, of Dallas, when he has these nodes, puts radium needles under them; he X-rays the surface, about all the skin will bear, and puts radium needles under them. I told him my method, and if any of you know his characteristic way of answering, he added on some words for emphasis only, and said it was probably better than his, but he had never tried it. When I find nodes isolated and any size, I X-ray the skin as heavily as it will bear—what I mean by that is five or six or seven skin unit doses of X-ray—and then under local anesthesia I dissect the node out, I split the skin and pull it back and dissect out the node with a cautery current, a cutting current, that is, a high-frequency cautery, and then I pull the skin back from the seat of that gland, and with a small cone give about 3,500 r units of X-rays in the cavity, depending on the size of it, to a certain extent. Having tried that in about 188 cases, if I remember rightly, it has given me better results than any method I have ever tried.

I want to say that it does not make any difference what we do, we are going to have some funerals in these cases, because they do not come to us very early, and they frequently come to us after some man has tried to remove them with a plaster, a caustic paste, and he has usually fired up all the lymphatics in sight and made the patient believe he was well when he was not. Whatever we do to them, whether we cut them out or treat them with radiation (and I never cut one any more—once in a while I scrape a light surface one off with a cutting current loop and then X-ray it, but I depend on radiation altogether now), the thing to do is to impress on the patient to come back and keep coming back, that he is not safe for at least five years.

DR. H. S. SHOULDERS (Nashville): I am very glad to hear this paper. Personally, I cannot see any reason in the world for doing any surgery on the upper lip. All of us know that very few of these cases have metastases when they have upper lip involvement, but lower lip involvement is an entirely different thing. Now please keep the upper lip and the lower lip divided, because the upper lip rarely has metastasis down in the lymphatics below.

I asked to have this picture that the essayist showed put back on the screen. I want to make that very impressive. I have had a number of cases operated with metastasis with lower lip involvement; I have treated a number of cases with X-ray radium, or I should say irradiation, and, frankly, I have to admit that surgery, irradiation, or anything else that we try is almost futile. I hate to say that, but I have got to say it for honesty's sake. Everybody knows that a carcinoma above the mouth rarely ever metastasizes, but a carcinoma of the lower lip or below the mouth does metastasize.

As to radical surgery, some of you surgeons are going to disagree with me. I have had a number of them operated on, and the final results are just the same. No surgeon in the world can know that he has got all the metastatic involvement. So I have come to this conclusion: that irradiation is probably the best method of treatment. It is the conservative treatment, and I doubt very seriously if surgery will give us any better results, and do not mistake me, I am not claiming any more for radiation.

DR. R. N. BUCHANAN (Nashville): I heartily agree with Doctor Wilson on several points. I

think that all of these cases should have a biopsy. The local removal and control of the primary lesion are absolutely essential.

If I may show Doctor Wilson's slide, it is my opinion that the lesion could be handled with better results if treated with radiation, perhaps 8,000 r, in divided doses given to that region on alternate days for about six different treatments. It would certainly control and completely eradicate the carcinoma.

I should like to ask Doctor Wilson one question: In what per cent of the glands after a routine dissection, whether palpable or not, could tumor tissue be found?

DR. HARWELL WILSON (closing): I appreciate the discussion very much, and the fact that all of it does not agree with the essayist simply makes the point originally stated, that it is a controversial subject, I think, more obvious. Also, in controversial subjects, if we are able to stimulate more interest, certainly in the long run we will increase the proportion of patients who may be cured.

We might start with the last question, that mentioned by Doctor Buchanan, as regards the percentage of metastases present in nodes removed. Doctor Heacock mentioned that in some cases reviewed from the literature it was about sixty per cent. Frankly, my percentage is much lower. The lesions mentioned would have come closer to twenty-five per cent. It depends, of course, upon the types of patients that we are dealing with as to how early we get them. The longer the patient waits to consult the doctor, the more apt he is to have metastasis.

As regards the use of both irradiation and surgery, I think that certainly in the neck both should not be used unless they are used with the viewpoint of rendering an inoperable carcinoma possibly operable.

Speaking of the upper lip, I think that I have been guilty in this presentation of not making myself entirely clear because most all of the remarks that I made were intended to concern the lower lip, which is by far the most frequent site of cancer. The upper lip cancers are relatively unusual, and they are usually the basal cell type, which, as pointed out by Doctor Shoulders, very infrequently metastasize.

As regards the slide we showed where the tissue was removed from the upper lip, this was certainly not removed with any intention at all of removing any metastatic tumor or any possible spread of cancer from the upper lip, but simply as one of the frequently used plastic types of procedure to give a better symmetrical proportion to the mouth.

I also agree, as stated before, that the local lesion may be cured by surgery, X-ray, or radium.

There is one thing which Doctor Chance brought out about the use of exposing the gland. I believe that Douglas Quick, working at the Cancer Memorial Hospital at New York, has written more on it than anyone, and that is, in some cases, dissecting back the skin and placing interstitial radium or radon directly in the involved nodes. I do not believe, however, that over a period of time this method has given any better results than the other methods which were previously outlined. In general, the things that we said before we will have to stand by as regards radical treatment of the neck.

As regards the eventual outcome of these cases, it may be that the younger men are guilty of being a little more optimistic than we may be after we have seen more cases. However, my own experience in handling these cases agrees with that of some of the clinics that are reporting these cases, notably the Memorial Hospital and other areas, in feeling that the results are tending to be better than they formerly were, and although the outlook may be bad, I think we are obligated to fight the carcinoma cell to the last ditch in order to save every patient that we possibly can.

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in four categories as follows: first, those who have been commissioned and are on duty; second, those who have been commissioned and are awaiting orders; third, those who have applied for a commission and are awaiting action by the proper authorities; fourth, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Cannon	R. C. Van Hook	Auburntown
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Chester	Hunter M. Steadman	Henderson
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Newton A. Cannon	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James W. Harrison	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville
Davidson	Jas. A. Loveless	Nashville
Davidson	J. P. Lowe	Nashville
Davidson	Sol Lowenstein	Nashville

*Deceased.

Davidson—Jas. R. McMillan—Nashville
Davidson—Robt. H. Magruder—Nashville
Davidson—C. G. deGutierrez-Mahoney—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Hugh Amos—Old Hickory
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—James O. Barker—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Greene—John G. Zirkle—Greeneville
Hamblen—Robert A. Purvis—Morristown
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—Carl A. Hartung—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Milton C. Semoff—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar
Hardeman—Wiley D. Lewis—Bolivar
Hardeman—M. J. Stewart—Whiteville
Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville
Hawkins—A. S. Yates—Rogersville

Haywood—Robert C. Berson_____Brownsville
Henderson—R. M. Conger_____Lexington
Henry—J. W. Didcoct_____Paris
Henry—Arthur C. Dunlap_____Paris
Henry—J. C. McKissick_____Paris
Henry—Geo. H. McSwain_____Paris
Hickman—Wm. L. Phillips_____Centerville
Jefferson—William B. Malcolm_____Dandridge
Jefferson—Frank L. Milligan_____Jefferson City
Knox—A. J. Weber_____Bearden
Knox—Malcolm F. Cobb_____Concord
Knox—B. B. Mitchell_____Fountain City
Knox—Charles M. Armstrong_____Knoxville
Knox—Spencer Y. Bell_____Knoxville
Knox—R. G. Brashear_____Knoxville
Knox—A. M. Carr_____Knoxville
Knox—E. E. Carrier_____Knoxville
Knox—Jack Chesney_____Knoxville
Knox—L. W. Chesney_____Knoxville
Knox—H. S. Christian_____Knoxville
Knox—H. E. Christenberry, Jr._____Knoxville
Knox—Sam M. Cooper_____Knoxville
Knox—T. P. Day_____Knoxville
Knox—W. A. DeSautelle_____Knoxville
Knox—T. B. Drinnen_____Knoxville
Knox—Richard N. Duffey_____Knoxville
Knox—J. Gilbert Eblen_____Knoxville
Knox—Jas. B. Ely_____Knoxville
Knox—Frank Faulkner_____Knoxville
Knox—Glenn D. Grubb_____Knoxville
Knox—Geo. G. Henson_____Knoxville
Knox—Oliver W. Hill, Jr._____Knoxville
Knox—C. R. Huffman_____Knoxville
Knox—C. E. Irwin_____Knoxville
Knox—Willard J. Irwin_____Knoxville
Knox—H. H. Jenkins_____Knoxville
Knox—J. O. Kennedy_____Knoxville
Knox—A. H. Lancaster_____Knoxville
Knox—R. P. Layman_____Knoxville
Knox—J. H. Lesher_____Knoxville
Knox—J. D. McCullough_____Knoxville
Knox—Wm. T. McPeake_____Knoxville
Knox—J. L. Montgomery_____Knoxville
Knox—Wm. S. Muse_____Knoxville
Knox—E. P. Nicely_____Knoxville
Knox—Frank O. Nichols_____Knoxville
Knox—Ralph Nichols_____Knoxville
Knox—B. M. Overholt_____Knoxville
Knox—Jos. B. Parker, Jr._____Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr._____Knoxville
Knox—Herschel Penn_____Knoxville
Knox—Jarrell Penn_____Knoxville
Knox—H. L. Pope_____Knoxville
Knox—John S. Powers, Jr._____Knoxville
Knox—John A. Range_____Knoxville
Knox—Jos. L. Raulston, Jr._____Knoxville
Knox—Hugh C. Reaves_____Knoxville
Knox—J. S. Ruffin, Jr._____Knoxville
Knox—J. H. Saffold_____Knoxville
Knox—A. B. Shipley_____Knoxville
Knox—P. D. Smith_____Knoxville
Knox—J. M. Stockman_____Knoxville
Knox—Geo. W. Tharp_____Knoxville
Knox—Phil Thomas_____Knoxville
Knox—Fred West_____Knoxville
Knox—Leon J. Willien_____Knoxville
Lake—W. T. Rainey_____Tiptonville
Lauderdale—J. H. Nunn_____Ripley
Lauderdale—W. Val Sanford_____Ripley
Lawrence—L. C. Harris, Jr._____Lawrenceburg
Lincoln—R. E. McCown_____Fayetteville
Lincoln—Ben H. Marshall_____Fayetteville
Lincoln—M. C. Woodfin_____Fayetteville
Lincoln—E. S. Leek_____Petersburg
Loudon—F. E. Hufstedler_____Lenoir City
Loudon—Avery Leeper_____Lenoir City
McMinn—S. B. McClary, Jr._____Etowah
McMinn—A. W. Reeser_____Athens
McMinn—Lester H. Shields_____Athens
McNairy—T. N. Humphrey_____Selmer
McNairy—H. O. Mason_____Adamsville
Madison—L. D. Farragut_____Bemis
Madison—Roderick C. Webb_____Bemis
Madison—Everett Archer_____Jackson
Madison—C. H. Brown_____Jackson
Madison—W. B. Camp_____Jackson
Madison—J. E. Douglass_____Jackson
Madison—R. S. Hellmann_____Jackson
Madison—Frank A. Moore_____Jackson
Madison—Carl Rogers_____Jackson
Madison—A. R. Taylor_____Jackson
Madison—J. R. Thompson, Jr._____Jackson
Madison—P. E. Wylie_____Jackson
Madison—Stevens Byars_____Mercer
Marshall—A. L. Cooper_____Chapel Hill
Marshall—H. B. Disharoon_____Lewisburg
Maury—W. N. Cook_____Columbia
Maury—Robin Lyles_____Columbia
Maury—J. B. Miller_____Columbia
Monroe—D. F. Heuer, Jr._____Sweetwater
Monroe—R. M. Price_____Sweetwater
Montgomery—J. A. Culbertson_____Clarksville
Montgomery—John H. Ledbetter, Jr._____Clarksville
Morgan—R. A. Steadman_____Wartburg
Obion—Hal E. Bennett_____Troy
Obion—Edward W. Barksdull_____Union City
Obion—R. M. Darnall_____Union City
Obion—R. G. Latimer, Jr._____Union City
Overton—H. B. Nevans_____Livingston
Pickett—Floyd B. Hay_____Byrdstown
Polk—Henry S. Harris_____Benton
Polk—J. H. Lillard_____Benton
Polk—H. H. Hyatt_____Copperhill
Putnam—H. H. Taylor_____Cookeville
Putnam—R. L. Akin_____Monterey
Roane—L. A. Killeffer_____Harriman
Roane—G. D. Schuessler_____Oliver Springs
Roane—F. Davis Owings_____Rockwood
Robertson—J. C. Lunderman_____Orlinda
Robertson—W. P. Stone_____Springfield
Rutherford—Harvey W. Carter_____Murfreesboro
Rutherford—Thos. G. Gordon_____Murfreesboro
Sevier—John A. Conroy_____Newton, Mass.
Sevier—Charles E. Pack, Jr._____Sevierville
Sevier—R. M. Perry_____Sevierville
Shelby—J. H. Adler_____Memphis
Shelby—R. Roger Anderson_____Memphis
Shelby—Chas. G. Andrews_____Memphis
Shelby—J. M. Aste_____Memphis
Shelby—Edward R. Atkinson_____Memphis

Shelby—Chas H. Avent—Memphis
Shelby—J. C. Ayers—Memphis
Shelby—James M. Bethea—Memphis
Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—R. F. Bonner—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—James M. Brockman—Memphis
Shelby—W. T. Braun—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—John Kerr Crawford—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—W. F. Dobyns—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Harold Feinstein—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—R. A. Hennessey—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—James E. Holmes—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Wm. E. Hurt—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingraham—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Richard King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Geo. E. Paullus, Jr.—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—G. S. Plog—Memphis
Shelby—Ira F. Porter—Memphis
Shelby—Hugh R. Raines—Memphis
Shelby—S. L. Raines—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Chas. G. Robinson—Memphis
Shelby—Wm. A. Runkle—Memphis
Shelby—P. B. Russell, Jr.—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—B. S. Taley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis

Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—Jack Viscofsky—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis
Shelby—J. E. Watson, Jr.—Memphis
Shelby—Julian K. Welch, Jr.—Memphis
Shelby—S. I. Wener—Memphis
Shelby—Horace G. Williams—Memphis
Shelby—W. L. Wilhelm—Memphis
Shelby—Harwell Wilson—Memphis
Shelby—John M. Wilson—Memphis
Shelby—J. E. Wilson—Memphis
Shelby—C. Frank Yates—Memphis
Sullivan—J. W. Erwin—Blountville
Sullivan—Tom Kuhnert—Bristol
Sullivan—John Marcy—Bristol
Sullivan—G. W. McCall—Bristol
Sullivan—B. W. Mongle—Bristol
Sullivan—L. B. Snapp, II—Bristol
Sullivan—F. L. Alloway—Kingsport
Sullivan—R. W. Asthalter—Kingsport
Sullivan—H. O. Bolling—Kingsport
Sullivan—R. H. Brown—Kingsport
Sullivan—H. S. Burem—Kingsport
Sullivan—W. C. Carreras—Kingsport
Sullivan—P. W. Cox—Kingsport
Sullivan—John B. Hamilton—Kingsport
Sullivan—R. B. Howard—Kingsport
Sullivan—K. R. Kiesau—Kingsport
Sullivan—M. D. Massengill, Jr.—Kingsport
Sullivan—J. F. Morton—Kingsport
Sullivan—R. G. Nichols—Kingsport
Sullivan—W. B. Payne—Kingsport
Sullivan—Raymond A. Steadman—Kingsport
Sumner—P. M. Huggins—Gallatin
Sumner—Benjamin A. Warren—Gallatin
Tipton—N. L. Hyatt—Covington
Tipton—J. S. Ruffin, Jr.—Covington
Tipton—O. J. Swisher—Covington
Unicoi—R. H. Harvey—Erwin
Unicoi—W. C. Humbert—Erwin
Unicoi—H. L. Monroe—Erwin
Union—Norman H. Rucker—Luttrell
Washington—C. M. Creech—Johnson City
Washington—H. B. Fuqua—Johnson City
Washington—C. S. Gresham—Johnson City
Washington—W. D. Hankins—Johnson City
Washington—Harry Myron, Jr.—Johnson City
Washington—W. L. Poole—Johnson City
Washington—W. G. Preas—Johnson City
Washington—Hugh F. Swingle—Johnson City
Washington—Charles P. Wofford—Johnson City
Washington—H. B. Cupp—Mountain Home
Washington—John Busey—Mountain Home
Washington—Ernest Marcus—Mountain Home
Weakley—Paul W. Wilson—Dresden
Weakley—Madison H. Buckley—Martin
Williamson—W. F. Roth, Jr.—Franklin
Wilson—O. R. Hill—Lebanon
Wilson—James McFarland, Jr.—Lebanon
Wilson—W. K. Tilley—Lebanon

DOCTORS WHO HAVE RECEIVED COMMISSIONS AND AWAITING ORDERS TO ACTIVE DUTY

County *Name* *Address*

Davidson—Nathan P. Horner—Nashville
Hamilton—Walter Buckner, II—Chattanooga
Hamilton—Eugene F. McCall—Chattanooga
Knox—R. H. Butler—Knoxville
Knox—Sam P. Davidson—Knoxville
Knox—Peter J. Flippin—Knoxville
Knox—D. T. Hoey—Knoxville
Knox—L. C. Ogle—Knoxville
Knox—J. W. Riggs—Knoxville
Knox—Jacob M. Williams—Knoxville
Madison—Roy M. Neudecker—Jackson
Shelby—Joseph D. Cleveland—Memphis
Shelby—Paul Hill Goodman—Memphis
Shelby—Harry Z. Landis—Memphis
Shelby—Robert E. Lawson—Memphis
Shelby—Bryant S. Swindoll—Memphis

DOCTORS WHO HAVE APPLIED AND WHOSE COMMISSIONS ARE PENDING

Anderson—J. L. Sergeant—Lake City
Campbell—C. E. Ausmus—Jellico
Davidson—S. W. Ballard—Nashville
Davidson—Theodore W. Davis—Nashville
Davidson—T. Emerson Simpkins—Nashville
Hamblen—Chas. S. Crook—Morristown
Knox—E. M. Eddington—Knoxville
Knox—Wiley R. Smith—Knoxville
Knox—John Szewczyk—Knoxville
Lincoln—James V. McRady—Fayetteville
Shelby—M. W. Adams—Memphis
Shelby—L. L. Carter—Memphis
Shelby—Clyde V. Crosswell—Memphis

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff—Clinton
Cannon—Carl E. Adams—Woodbury
Anderson—A. J. Butler—Clinton
Carter—John L. Chesnut—Elizabethton
Carter—E. T. Pearson—Elizabethton
Coffee—Wm. M. Minnis—Manchester
Davidson—E. E. Anderson—Donelson
Davidson—R. Z. Linney—Madison
Davidson—Joe E. Sutherland—Madison College
Davidson—J. J. Ashby—Nashville
Davidson—Edward H. Barksdale—Nashville
Davidson—Lynch D. Bennett—Nashville
Davidson—Randolph A. Cate—Nashville
Davidson—David W. Hailey—Nashville
Davidson—Andrew N. Hollabaugh—Nashville
Davidson—Thos. M. Jordan—Nashville
Davidson—J. K. Kaufman—Nashville
Davidson—Carl Kirchmaier—Nashville
Davidson—N. B. Morris—Nashville
Davidson—James C. Overall—Nashville
Davidson—James N. Owens—Nashville
Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville

Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Herman Spitz—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville
Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Chas. W. Davis—Humboldt
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—Rae B. Gibson—Greeneville
Hamblen—M. J. Bellaire—Morristown
Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—John Moore—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Morgan—Wm. E. Gallion—Oakdale
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Sevier—J. Myron Mittleman—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—H. E. Atherton—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Charles K. Lewis—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Roland H. Myers—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Donald W. Oelker—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Leo F. Pierotti—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—R. O. Rychener—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Washington—G. V. Stanton—Limestone
Wayne—Dexter L. Woods—Waynesboro
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

APRIL, 1943

EDITORIAL

Invalid Diets and Food Rationing

Of interest to all who are concerned with diets for invalids in Ration Order 13, issued by the Office of Price Administration under date of February 9, 1943. This order covers all canned, dried, and frozen fruits and vegetables. Article II, Section 2.5 of the order reads as follows:

"Consumers who need more processed foods because of illness may apply for more points. (a) Any consumer whose health requires that he have more processed foods than he can get with War Ration Book Two may apply for additional points. The application must be made on O. P. A. Form R-315 by the consumer himself or by someone acting for him, and may be made in person or by mail. The application can be made only to the board for the place where the consumer lives. He must submit with his application a written statement of a licensed or registered physician or surgeon, showing why he must have more processed foods, the amounts and types he needs during the next two months, and why he cannot used unrationed foods instead. (b) If the board finds that his health depends upon his getting more processed foods, and that he cannot use or cannot get unrationed foods, it shall issue to him one or more certificates for the number of points necessary to get the additional processed foods he needs during the next two months."

The application form referred to above, O. P. A. Form R-315, is apt to be somewhat confusing to patients. It is titled "Sugar Special Purpose Application" and was developed primarily to meet the need for home canning. It is being used temporarily, until a more adequate form can be gotten out.

It is anticipated that the procedure indicated in Section 2.5 above may be changed somewhat in the future, in which case due notice will be provided.

War Conference

The medical, surgical, and industrial hygiene experts who are so ably safeguarding the well-being of more than twenty million industrial workers have agreed to pool their knowledge and exchange their experiences regarding the many new and complex problems of today's wartime production. For this purpose their organizations—the American Association of Industrial Physicians and Surgeons, the American Industrial Hygiene Association, and the National Conference of Governmental Hygienists—are combining their annual meetings in a four-day "War Conference" at Rochester, New York, May 24-27, 1943. Among the problems to be discussed from a practical standpoint are:

The mass entry of women into industry;

Older-age employees, with their various associated problems; proper placement and employability considerations of the 4F rejectees;

Rehabilitation and proper employment of those already discharged from the military services because of disabling conditions;

Toxic and other hazards from new substances, new processes, and the use of substitute materials;

Absenteeism; fatigue; nutrition;

Effects of long hours; double shifts; two-job workers; overtime; increased industrial accident rates;

Advances in the treatment of illnesses and injuries, and many others.

This joint meeting will be a report on the state of the nation by the men who know in matters of industrial health. Dr. William A. Sawyer, medical director of Eastman Kodak, is general chairman; Dr. James H. Sterner and Lieutenant Commander J. J. Bloomfield are arranging the programs for the industrial hygienists.

Physicians and surgeons, hygienists, engineers, nurses, executives—all who are interested in the problems of industrial health and their solution—are invited to attend as many of the sessions as they can arrange for; no registration fee is required.

The Efficiency of Medical Care

The value of efficient medical care was never more effectively demonstrated than at the present time. It is so effective that medical care today is regarded as a fundamental necessity along beside food, clothing, and shelter.

The importance of medicine in the whole scheme of life is increasingly appreciated by lay people, but certainly not more than it deserves.

Politicians are ready to make an issue of the fact when medical care is regarded as inadequate in a given area. Politicians have also sought power to dominate the whole of medical care on the assumption that if they had the money and the power they would do a better job.

Certainly great progress has been made by medicine. Progress has been in three main directions. First, there has been progress in the field of scientific investigation which has yielded knowledge of tremendous practical usefulness.

Second, there has been progress in the education of doctors. Educational standards that have been established are relatively high.

Third, there has been progress in the direction of making scientific medicine available to all the people. This is true regardless of any allegation to the contrary.

Since this progress along all these lines has been so outstanding it might be worth while to consider for a moment the question: "What influence or influences have been effective in bringing about this progress?" Many influences might be mentioned, but all of them had their origin within organized medicine. Aid has been available from without, in the form of finance; but none of the wisdom, and none of the philosophy, and none of the ethical principles that have made this progress sound and safe in reality had origin outside of medicine. They have all had origin within the leadership of organized medicine.

It is obvious to all that progress is often made unsafe. The speed of an automobile alone can be unsafe. So-called political progress has often led to the worst tragedies. Progress in any line when not guided and governed by ethical principles may be very unsafe and even harmful.

Organized medicine has supplied the wisdom, the vision, the principles and all to bring this about.

Higher standards in medical education had their origin in medical leadership. Organized medicine has sought legislation in the several states to increase the requirements of the state with regard to the fitness of those who would engage in the practice of the healing art. This legislation was never sought on the basis of monopoly. It was sought for the purpose of making medical progress safe and sound and of guaranteeing to the people the best available.

There has been progress in medical teaching, both undergraduate and postgraduate. There are very few medical colleges in the United States today whose graduates are not qualified.

A tremendous effort has been made along the lines of postgraduate education to the end that doctors be made more capable in

dealing with the problems of sick people. To mention a few:

First, there is the internship immediately after graduation and maybe a residency in a well-organized hospital. There are organized postgraduate courses, medical society meetings, and medical literature in increasing volume and importance. All these lead to an increased competence.

The worth-whileness of all these efforts was never more effectively demonstrated than in the reports that come from the several war fronts where United States troops are engaged. Someone might say that this is due to the practice in vogue in the Army and Navy. No, this is not true. Almost all the doctors who are rendering direct services to injured soldiers had their training in civilian institutions and in private practice. In such an environment their sense of obligation to their patients was inculcated and their abilities created.

So then I submit that the services that are now available to civilians, as well as to the armed forces, afford the finest reason for never allowing anyone to disturb a system of education and practice which has wrought so well.

Epidemic Keratoconjunctivitis

This disease is of concern not only to the ophthalmologist. It is of concern to all doctors, and especially industrial surgeons. It is so important that a special warning bulletin was issued on the subject by Dr. C. M. Peterson, secretary of the Council on Industrial Health of the American Medical Association.

On another page of this issue of the Journal (among the scientific articles) will be found an article on this subject by Dr. M. L. Berliner of New York, which is reproduced from the *American Journal of Ophthalmology* for January, 1943, by the kind permission of the editor.

Dr. Robert J. Warner, the abstractor on ophthalmology, had selected this article for abstracting, but recommended to the editor that it be run in full because of the importance of the subject.

DEATHS

Dr. J. B. McElroy

Dr. J. B. McElroy, Memphis; College of Physicians and Surgeons of Baltimore, 1893; aged seventy-seven; died March 24, 1943.

Dr. Robert Mann

Dr. Robert Mann, Memphis; Memphis Hospital Medical College, 1904; aged sixty-three; died January 1, 1943, after an illness of several months.

Dr. Hugh Lawson Carroll

Dr. Hugh Lawson Carroll, Knoxville; Lincoln Memorial University, Medical Department, Knoxville, 1908; aged sixty-one; died January 30, 1943.

RESOLUTIONS

Dr. Hugh Lawson Carroll

Dr. Hugh Lawson Carroll was born March 3, 1882, in Campbell County, Tennessee, the son of Henry and Mary Dossett Carroll and died January 30, 1943. Following the death of his parents, which occurred while he was a mere child, he spent some time with an uncle in Indiana and later went to Illinois, where he secured his early education and was employed by the farmers during the vacation periods. It was there that he met and later married Miss Jessie White.

Coming to Knoxville at the age of twenty-one, he matriculated as a medical student in the Tennessee Medical College and graduated in 1908.

He first located at Tellico Plains, where he practiced medicine for one year and then spent a number of years in general practice in southern Georgia.

He returned to Knoxville a short time before the beginning of the first World War, during which he applied for and was granted a commission in the Army and was assigned to duty in an Army base hospital.

After the armistice, he again returned to Knoxville, building up a huge private practice, which continued with constantly increasing volume until interrupted by poor health.

It was his custom to do postgraduate work at frequent intervals, attending clinics in many of the large centers. These studies were continued throughout his entire professional career until interrupted by his untimely passing.

Therefore be it resolved, That the members of the Knox County Medical Society feel deeply the loss sustained in his death, and our deepest sympathy is extended to Mrs. Carroll and relatives, and that a copy of these resolutions be placed on file with our society, one to be sent to Mrs. Carroll and one to the TENNESSEE STATE MEDICAL JOURNAL for publication.

M. S. ROBERTS, M.D.,
ANDREW SMITH, M.D.,
H. C. LONG, M.D.,
Committee.

NEWS NOTES AND COMMENTS

CHANGE OF ADDRESS

Dr. Harold V. Woods, Byrdstown, to 1832 Claremont Avenue, Independence, Missouri.

Dr. R. D. Tompkins, Mountain Home, Tennessee, to Veterans Administration, Bay Pines, Florida.

Dr. Richard E. Strain, Burch Clinic, Nashville, to 125 North Church Street, Murfreesboro.

Dr. John W. Dabbs, Cleveland, to Leflore County Health Department, Greenwood, Mississippi.

Dr. Miriam M. Drane, Sterick Building, Memphis, to 820 Florida Power Building, St. Petersburg, Florida.

Dr. J. I. Huggins, White Pine, Tennessee, to 835 Tenth Street, Bowling Green, Kentucky.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

C. E. Gutierrez-Mahoney, major, Medical Corps, Nashville, to 1032 Andalusia Avenue, Coral Gables, Florida.

Albert Sullivan, lieutenant colonel, Medical Corps, Nashville, to Station Hospital, Camp Rucker, Alabama.

Alex Fount Russell, major, Medical Corps, Lawson General Hospital, Atlanta, to Detachment, Second Auxiliary Surgical Group, A. P. O. 668, care Postmaster, New York City.

Sumner W. Brown, first lieutenant, Medical Corps, Fort Jackson, South Carolina, to A. P. O. 4015, care Postmaster, New York City.

T. N. Humphreys, first lieutenant, Medical Corps, Carlisle Barracks, Pennsylvania, to University of Tennessee, Memphis, Tennessee.

E. E. Reisman, Jr., Carlisle Barracks, Pennsylvania, to Hotel Philadelphia, Thirty-Ninth and Chestnut Streets, Philadelphia.

Robert A. Wise, lieutenant, Medical Corps, El Paso, Texas, to 24 Sterling Avenue, New Orleans, Louisiana.

Albert M. Jones, first lieutenant, Station Hospital, Fort Jackson, South Carolina, to A. P. O. 8716, care Postmaster, New York City.

H. B. Cupp, captain, Medical Corps, Sixty-Third Station Hospital, Jefferson Branch, New Orleans, Louisiana, to Sixty-Third Station Hospital, Fort Ord., California.

John H. Lesher, major, Medical Corps, Eighty-Sixth Station Hospital, N. O. S. A., New Orleans, Louisiana, to 257th Station Hospital, N. O. S. A., New Orleans, Louisiana.

Frazier Binns, captain, Medical Corps, United States Army and Navy Hospital, Hot Springs, Arkansas, to Staunton, Virginia.

George H. McSwain, captain, Medical Corps, Paris, Tennessee, to Eleventh A. B. Division, Camp Mackall, Huffman, North Carolina.

Theodore Morford, captain, Medical Corps, U. S. A., 0-200007, Second Convalescent Hospital, A. P. O. No. 700, care Postmaster, New York City, is now in Northwest Africa. He reports that the patients are brought in by plane from the front, and that the work is quite heavy. He also reports that he has bought a few seeds for a garden, so you see he is finding diversion.

MEDICAL SOCIETIES

Davidson County:

March 16—"Chronic Ulcerative Colitis," by Dr. D. W. Smith. Discussion by Drs. W. R. Cate and H. H. Shoulders.

April 6—"Certain Therapeutic Hazards," by Dr. Albert Weinstein. Discussion by Dr. W. H. Witt.

Dr. J. C. Pennington gave a five-minute discussion on "Status of Treatment of Carcinoma of Prostate Revealed at Recent New Orleans Meeting."

In the future meetings will be held on the first and third Tuesdays of each month.

Hamilton County:

March 18—Paper by Dr. O. B. Murray.

Case reports.

April 1—"Prevention Measures in Cardiac Disease," by Dr. P. R. Hysinger.

Case reports.

April 8—"Healing of Wounds," by Dr. Franklin Johnson.

Case reports.

Hardin, Lawrence, Lewis, Perry, and Wayne Counties:

The Five-County Medical Society met in Waynesboro, Tennessee, on March 30. The following papers were read:

"The Cervix in Labor," by Dr. W. E. Boyce, Hohenwald.

"Sulfathiazole in Pneumonia," by Dr. J. V. Hughes, Savannah.

Dr. D. L. Woods made a short talk on his recent experiences in the armed forces.

OTHER MEDICAL SOCIETIES

Vanderbilt Medical Society
March 5, 1943

1. "The Effects of Rapid Compression Waves on Animals Submerged in Water," by Sam L. Clark and James W. Ward. Vanderbilt Medical School, Nashville, Tennessee.

A series of cats, rats, and mice were subjected to a compression wave produced in water by dropping a falling weight on a floating wooden plunger. The plunger fitted loosely into one end of a water-filled open U-tube, the animal being placed in the other. The wave set up lasted less than 1/1000 of a second and traveled about 5,000 feet per second. With an adequate weight falling from an adequate height a rat would be killed following a single impact (e. g., 1,800 grams weight falling 2.5 meters, rat weighing 175 grams). Animals died immediately from massive pulmonary hemorrhage and the subsequent interference with respiration, but also showed hemorrhage in intestinal walls, especially in the neighborhood of gas accumulations, with occasional rupture of the intestine. Such findings are like those reported for men exposed to blast in air or water. Factors varying the result were: height of fall and size of weight, size and position of animal, the amount of submersion, the presence of protective coverings, state of inflation of the lungs, and the presence of air in viscera or tissues.

2. "The Pathogenic and Antigenic Properties of Dermal Vaccinia Virus Propagated in the Chorioallantois of the Chick Embryo," by G. John Buddingh, M.D.

A strain of dermal vaccinia virus has been propagated without intervening mammalian passage in the chorioallantois of chick embryos through 240 passages over a period of nine years. The pathogenic and antigenic properties of virus from the

240th chick embryo passage were compared with those of the strain of calf virus, from which the chick embryo strain was originally derived. It was that although the chick embryo virus produced a markedly milder reaction in rabbits and man its antigenic properties determined by measuring the virus neutralizing capacity of the sera of the test animals and human subjects had not diminished. The capacity of the immune sera to neutralize variola virus was measured by the "pock-counting" method. The chick embryo virus induced protection against variola to the same degree as that induced by the original calf virus.

3. Abstract of Case Report, by Dr. J. K. David.

A case of tularemic meningitis occurring in a five-year-old white girl is reported. The child's illness began two days after she received a cat bite on the hand. During life bacillus tularense was cultivated from the blood, spinal fluid, and from an ulcer on the hand. The child expired on the thirteenth day of her illness. Autopsy revealed areas of focal necrosis, character of tularemia, in the liver, spleen, adrenals, and bone marrow. Microscopic examination of the brain and meninges showed marked infiltration of the leptomeninges with lymphocytes, polymorphonuclear leucocytes, and lipoid-laden mononuclears. Areas of focal necrosis were present in the meninges and in the adjacent brain substance were found.

A review of the reported case of tularemic meningitis was given.

ABSTRACTS OF CURRENT LITERATURE

ANESTHESIA

By Hugh Barr, M.D.
Medical Arts Building, Nashville

Anesthesia for Seriously Wounded. H. K. Beecher. Journal of American Medical Association, March 20, 1943.

This article deals with anesthesia in the seriously wounded who are for the most part in shock. Anesthesia can cause shock even in those not already in shock. The choice of an anesthetic should be one suitable for use under circumstances of mobile warfare.

For minor operations local anesthesia is the method of choice. For major procedures ether is the best all-single anesthetic agent. When great speed of induction and recovery is desired, cyclopropane or ethylene is used. Spinal anesthesia is poorly tolerated by the severely wounded. Intravenous barbiturates are chiefly used for short procedures or as supplementary agents when local proves inadequate. Chloroform, while apparently ideal, causes heart and liver damage.

Nitrous oxide, ethylene, and cyclopropane demand the use of a cumbersome apparatus, but are useful when speed is desired. Valuable data can be obtained concerning shock during anesthesia without delaying or hampering in any way the patient's treatment. The best type of anesthesia in seriously wounded patients never has been absolutely determined. It can only be determined by trained observers under military conditions.

INTERNAL MEDICINE

By R. B. Wood, M.D.
By D. R. Thomas, M.D.
Medical Arts Building, Knoxville

Food as Sources of Nutrition. Franklin C. Bing, Ph.D. Symposium on Nutrition. Medical Clinics of North America, March, 1943.

Dietary essentials include sufficient calories, proteins, minerals (iron, calcium, phosphorus, and iodine), certain better-known vitamins A, D, thiamin, riboflavin, nicotinic acid, ascarbic acid. In addition there are other substances essential for life, but found widely distributed. These are (1) fatty acids, (2) inorganic elements as sodium, potassium magnesium, and chlorine, (3) less well-known vitamins as choline, pantothenic acid, pyridoxine, biotin, and vitamins E and K. Approximate demands of an adult male of approximately 150 pounds follow:

Vitamin A—5,000 units found in milk, butter, beef fat, liver. A single serving of three and one-half ounces of cooked greens (beet tops, kale, chard, mustard greens, spinach or turnip greens) will furnish about 10,000 international units, as does a similar serving of carrots, while four ounces of squash or sweet potato provide about 5,000 international units. An ounce of summer butter provides 1,600 international units.

Thiamin—requirement of about 1.8 milligram. This is provided by four ounces of lean pork meat, whereas lamb and beef are not so richly endowed. Other foods rich in thiamin are whole wheat bread, oatmeal, peanuts, and in most vegetables.

Ribothyrin—requirement of 2.7 milligrams. This can be found in three pints of milk. A serving of meat will supply about one-twelfth of a daily need, but four ounces of liver produces three milligrams. It is easily destroyed by light.

Niacin—the pellagra preventive. Requirements around eighteen milligrams and met by four ounces of liver and eight ounces of red meat, and found freely in bran and whole grain cereals.

Ascorbic acid—requirements of seventy-five milligrams. Found in one-half grapefruit, three and one-half ounces of strawberries, five ounces of orange juice, or twelve ounces of tomato juice. Canned juices are of equal value.

Protein—seventy to one hundred grams. Can be found in two servings of meat, a pint of milk, four slices of bread.

Calcium—allowance of eight grams. One pint of milk contains .6 gram. Green, leafy vegetables or hot biscuits with self-rising flour will help to supplement the deficit.

Phosphorus—eight grams. Supplied by one pint of milk or by meats and whole grain cereals.

An Adequate Diet

Milk.—Two or more glasses daily for adults, three or four more glasses daily for children. This may be drunk as such or combined with other foods.

Vegetables.—Two or more servings daily in addition to potatoes. Preference should be given to the green leafy and the yellow vegetables because of their vitamin A. One vegetable might well be eaten raw if it is a good source of vitamin C.

Fruits.—A serving of more of fruits is desirable, but preference should be given to fruits which contribute vitamin C. Citrus fruit and tomatoes (some will consider this a vegetable) are outstanding sources, and the commercially canned products are as good as the fresh.

Meats and Other Protein Foods.—There should be one serving of meat for its protein content. Additional servings will supply more protein and more thiamin, riboflavin, and nicotinic acid which meats provide. Fish, cheese, and legumes also provide proteins, but as a rule are poorer in the B vitamins. Eggs are valuable protein foods and also supply some iron and riboflavin and vitamin A.

Cereals, Bread and Butter, and Other Fats.—These are the energy foods. In selecting them it is well to choose those items which contribute additional food values. Thus the cereal products ought to be whole grain or enriched. Fats ought to be butter, which contains vitamin A. If oleomargarine is used for economy, then it would be well to select that which supplies vitamin A.

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

The Diagnosis and Treatment of Placenta Previa. William F. Mengert. Journal of Michigan State Medical Society, May, 1941, 382-388.

All patients suspected placenta previa should immediately be hospitalized. The establishment of a definite diagnosis constitutes an indication for the prompt termination of pregnancy. A reliable diagnosis of placenta previa can only be made by sterile vaginal examination, which should be done at the time therapy is contemplated because of the danger of instituting hemorrhage. The treatment of actual or potential shock from hemorrhage represents the first and most important step in therapy.

The symptomatology is relatively meager. Painless, apparently causeless, bleeding occurring in the third trimester of pregnancy must be considered to be placenta previa until the diagnosis is definitely established. There is, however, but one certain diagnosis of placenta previa—digital vaginal palpation of the placenta through the cervical os. It is also possible to determine the degree—marginal, partial, or complete. When the prepared, gloved finger introduced through the cervical os cannot feel the placenta, the patient does not have placenta previa.

Many object to vaginal examination on the basis that subsequent Caesarean section is thereby contraindicated. The author does not feel this is the case. The dangers of infection following a well-conducted, sterile, vaginal examination are very small and are negligible in comparison with those associated with abdominal delivery. Moreover, many Caesarean sections are performed on the basis of history alone. Such patients frequently do not have placenta previa, and their number is greater than those actually with the condition. If Caesarean section is contemplated, it is suggested that a single, sterile vaginal examination be done in surgery after the patient is prepared, but before the incision is made. By this means, many women will be spared a useless operation.

Many methods of treatment for placenta previa are currently in vogue. Some are distinctly dangerous, others offer the mother nearly identical chances of survival, but vary widely in their effect on fetal mortality rates. All physicians are in accord with regard to two basic measures: (1) The patient should be removed to a well-equipped hospital. (2) She should immediately be prepared for blood transfusion, and the donor must remain on call until the emergency is ended. Blood transfusion is not necessary in every case of placenta previa, since some patients do not lose abnormal quantities of blood. It was used in almost half of the seventy patients in this series. The treatment of shock has done more than any single thing to reduce the maternal mortality in placenta previa.

When the fetus is questionably able to survive after birth, and when the initial hemorrhage is minimal, it may be justifiable to put the patient to bed in a hospital. In such cases no attempt should be made to establish an absolute diagnosis by vaginal examination, because of the associated dangers of hemorrhage, until the fetus grows to an adequate size, or until additional bleeding requires more active measures. Otherwise, the patient must remain absolutely at rest and under constant observation. If hemorrhage recurs despite bed rest, preparation for immediate delivery must be begun. This type of watchful waiting is rarely justifiable except as outlined.

The problem in all vaginal methods of treatment for this condition consists in the control of hemorrhage during the time that the cervix is dilating

sufficiently to permit delivery of the baby. Spontaneous labor with or without antecedent rupture of the membranes will successfully treat more than half of all cases of placenta previa, since over fifty per cent are marginal in type. In this type the placenta merely encroaches slightly on the cervical margin. If labor ensues spontaneously a short time after the initial hemorrhage, it may not be necessary to rupture the membranes after the diagnosis is established. On the other hand, with the patient not in labor, rupture of the membranes is necessary in order to institute labor and thus control the bleeding. Of all the vaginal methods employed at the University of Iowa, this offered the best chance of fetal survival (eighty-nine and one-half per cent) and no mother so treated died.

If bleeding is not completely controlled following artificial rupture of the membranes, it is our custom to employ traction of one-half to one pound on the scalp, using grasping forceps or Allis clamps. In the six patients recently treated in this manner, five of the babies survived and no complications developed from the superficial scalp wound that resulted.

As previously stated, spontaneous labor with or without antecedent rupture of the membranes will control all cases of marginal and a few of the simpler varieties of partial placenta previa with great success. Scalp traction in addition will suffice to treat successfully all of the simpler and a few of the more severe varieties of partial previa. Dangerous vaginal methods of delivery include packing of the cervix and vagina and manual dilatation of the cervix. Packing carries with it the threat of serious infection. Manual dilatation of the cervix has no place in the treatment of placenta previa.

When the more severe grades of partial and central placenta previa are treated vaginally, it is usually necessary to employ a more positive type of pressure than that afforded by scalp traction. The use of the hydrostatic bag inserted directly into the amniotic cavity through a hole in the placenta will serve the mother admirably, but definitely increases the risk to the baby. Caesarean section is indicated for the sake of the baby in selected cases of the more severe varieties of placenta previa. On the other hand, when the fetus is known to be dead, or is obviously too small to live after birth, the employment of the hydrostatic bag should be the method of choice.

Manual Removal of the Placenta. Harold A. Schwartz and William R. Richards. American Journal of Obstetrics and Gynecology, Volume 45, No. 2.

Many authors consider that manual removal of the placenta following pelvic delivery bears with it the greatest morbidity and mortality of all obstetric operations. The incidence of this operation is usually given as about one per cent of all deliveries, although some report an incidence as low as .3 per cent and others as high as 3.27 per cent.

The authors believe that the operation is often an incidental procedure following a more serious operative delivery and consequently is accused unjustly of the resulting morbidity and mortality. Nevertheless, manual removal of the placenta cannot be considered an innocuous operation; for this reason the attendant often procrastinates in the presence of an excessive blood loss, thereby adding considerable danger to the manual removal when it is finally performed. Many lives are probably lost by this delay rather than by the operation itself.

An analysis of seventy-four consecutive cases of manual removal of the placenta at Bellevue Hospital is given. This represents an incidence of .83 per cent of 8,902 deliveries over a period of six years.

The uncorrected mortality is three, and the corrected mortality is two, or 2.7 per cent, one patient dying from hemorrhage and one from sepsis. With transfusions and ergonovine, deaths from hemorrhage because of manual removal of the placenta should be extremely rare, provided the obstetrician does not await an alarming blood loss before resorting to manual intervention.

The uncorrected morbidity is 43.1 per cent. Manual removal of the placenta is often an incidental procedure which follows a complicated labor or a serious operative delivery and usually is accused unjustly of the ensuing morbidity and mortality. Only twenty-one cases of the entire series of seventy-four had an entirely uncomplicated labor and delivery, and six of these were packed after the manual removal.

The following factors were the most important in increasing the morbidity after manual removal: prolonged labor, intrapartum amniotic sac infection, difficult operative delivery, uterine tamponade after manual removal, and post-partum hemorrhage. Tamponade of the uterus can be avoided in most instances if the uterus is empty and ergonovine is given liberally.

There were 64.9 per cent of the seventy-four cases associated with a post-partum hemorrhage of 500 cubic centimeters or over, and 31.1 per cent with a post-partum hemorrhage of 1,000 cubic centimeters or over. The degree of hemorrhage was directly related to the morbidity rate.

The following factors were found to increase the incidence of manual removal: a previous manual removal, post-partum hemorrhage, difficult operative delivery, prematurity and immaturity of the infant, maceration of the fetus, twins, and amniotic sac infection. The importance of maceration of the fetus appears to have been disregarded in previous reviews.

A patient who has had one manual removal of a retained placenta is likely in a subsequent pregnancy to require a repetition of the procedure.

Placenta accreta has not been observed at Bellevue Hospital for the past ten years, during which time there have been over 15,000 deliveries.

Cyclopropane appears to be the anesthetic of choice for manual removal if the uterus is overdistended.

Failure to realize that hemorrhage may continue during and immediately after manual removal will

cause unnecessary maternal deaths. An infusion or transfusion should be started before the manual removal in almost all cases. Rh negative blood or plasma is essential for transfusion if a macerated or erythroblastotic infant has been delivered.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

The Incidence of Pyelonephritis in Successive Pregnancies. John T. MacLean (by invitation) and Clyde L. Deming. The Journal of Urology, February, 1943.

Doctor Crabtree's work on pyelonephritis, associated with pregnancy, has greatly contributed to the known facts on this subject.

This article deals with a statistical and critical study of sixty-eight cases of pyelonephritis of pregnancy followed and treated in the Department of Urology of the New Haven Hospital.

Of the sixty-eight cases there were seventy-four infections, sixty-five of which developed during pregnancy and nine developed post partum. The age ranged from fifteen to forty years, with an average age of 26.7 years. About two-thirds of the infections occurred in the first and second pregnancies and the majority occurred during the fifth, sixth, seventh, and eighth months of pregnancy.

There were five complications. One with unilateral double kidney and ureter, one with bilateral double kidneys and ureters, one with renal calculus, one with anterior poliomyelitis, and there was one death.

Surgical procedures were carried out in three cases from three months to one year post partum. One had a pyelolithotomy and two a nephropexy.

The types of infections were as follows: bacillus coli, thirty-six cases; staphylococci, nine cases; mixed infections, nine cases; unidentified, two cases; not reported, nine cases.

The infections occurred on the right side in twenty-five cases; on the left in fifteen; bilateral in twenty-five; and cystitis alone in nine.

Medical induction of labor was carried out in twelve cases. Five in the seventh month and seven in the eighth month. Three cases had spontaneous abortions and four had supravaginal hysterectomies. There were two Caesarean sections at term. There were forty-three living babies in the series.

In the forty-five cases chemotherapy was used; in seven no therapy was given. Thirteen cases had dilatation of the ureter and lavage.

Twelve of the patients were cured during pregnancy; thirty-six remained infected until delivery; and in nine cases the end results were not determined.

Eighty-five per cent of the patients who were treated conservatively were delivered and ninety per cent of these obtained living babies.

The amount of estrin and corpus luteum excreted increases progressively from the third month on during pregnancy. The dilatation of the ureters parallels the excretion of these hormones and the incidence of pyelonephritis parallels the dilation of the ureters.

Twenty-seven per cent of the cases with pyelonephritis during pregnancy had hypertension, while in a group of patients with pyelonephritis not complicated by pregnancy, twenty-nine per cent had hypertension.

BOOK REVIEW

Central Nervous System Manifestations of Nutritional Deficiencies. Milton Rosenbaum, M.D., and John Bradley.

It has been demonstrated that a deficiency of two specific factors—nicotinic acid and thiamin—lead to disturbances of the central nervous system with alterations of behavior, but the criteria for their recognition has not been established.

"The general way in which a deficiency of these two specific factors could interfere with central nervous system function has been established by recent physiological and chemical studies which have demonstrated: (1) that functional activity of the central nervous system is dependent upon its respiratory metabolism; (2) that its respiratory metabolism is limited almost exclusively to the oxidation of carbohydrates; (3) that this oxidation of carbohydrates requires a number of specific chemical entities which act as intermediaries or catalysts and without which oxidation cannot take place; (4) that some of these specific chemical substances cannot be formed within the human body as they can be in some lower organisms, but must be supplied preformed in the food consumed.

"That disturbances in behavior occur as a result of a deficiency of these specific chemical entities has been established: (1) by the relief of naturally occurring altered central nervous system function and behavior following the administration of nicotinic acid and thiamine; (2) by the experimental induction of states of altered behavior in man and animals by means of inadequate, unbalanced diets, and their subsequent relief by the administration of these specific factors; and (3) by the experimental production in animals, by means of a diet deficient only in thiamine, of pathologic lesions in the central nervous system accurately duplicating the characteristic lesions of Wernicke's syndrome."

It has long been recognized by most physicians who have studied pellagra that many patients had minor "vague and indefinite" complaints that usually existed for years before the classical symptoms of pellagra appeared. Sydenstricker states: "In the chronic partial deficiency of nicotinic acid that eventually results in endemic pellagra, mild psychic disturbances are almost always the first evidence of disease." Undoubtedly, many such patients were regarded as "neurotics" and were considered to have "functional" disorders. The syndrome was often diagnosed "neurasthenia" and at first was considered a "prodromal" phase of pellagra. It is important to realize that such symptoms are part

and parcel of the disease itself, and that symptoms which indicate disturbances in the emotional and intellectual behavior of a person may occur as the only manifestations of a deficiency state. The obvious corollary to this is that in order to recognize nicotinic acid deficiency in its early stages the physician should suspect it in patients with such mild psychic disturbances. This does not mean, however, that all patients with mild psychic disturbances have nicotinic acid deficiencies.

Practically the same thing may be said about thiamine deficiency. Although ordinarily thought of in terms of beriberi and of polyneuritis, evidence is accumulating that, just as in pellagra, psychic disturbances may be among the earliest manifestations of thiamine deficiency. This is probably best illustrated by the experimental production of isolated thiamine deficiency by Williams, Mason, Wilder, and Smith. Obviously, the corollary here is the same as in nicotinic acid deficiency; in patients with mild psychic disturbances, one should always look for early thiamine deficiency.

Clinically, the symptomatology noted has been "nervousness," consisting of sensitivity to noises, emotional instability, undue sensitiveness, easily frightened, anxiety even to the fear of impending death because of the cardiorespiratory symptoms. Choking, depression, insomnia, scarey dreams, dizziness, feeling foolish, marked fatigue, restlessness, etc., may be listed under the chief complaints.

Summary

1. Nicotinic acid and thiamin chloride are necessary for normal functional activity of the central nervous system.

2. A deficiency of either of these two factors may result in a disturbance of central nervous system function with alterations in behavior ranging from "neurotic-like" pictures with anxiety as an outstanding feature to clear-cut psychoses.

3. It is of utmost importance to make an early diagnosis and institute therapy before irreversible changes in nervous system function occur. A reliable nutrition history and therapeutic tests aid in establishing a diagnosis. Central nervous system manifestations due to nutritional deficiencies respond dramatically to specific therapy.

4. The importance of a good diet supplemented by specific therapeutic agents cannot be overstressed. Although such measures will, in most instances, restore the patient to health, he must continue to eat a liberal well-balanced diet in order to remain well.

R. B. W.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

President-Elect—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.

Vice-President for West Tennessee—Dr. F. Douglas, Dyer.

Vice-President for Middle Tennessee—Dr. S. J. Fentress, Goodlettsville.

Vice-President for East Tennessee—Dr. B. L. Jacobs, Chattanooga.

Secretary-Editor—Dr. H. H. Shoulders.

Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1943).

Dr. E. R. Zemp, Walnut Street, Knoxville.

Dr. B. L. Jacobs, Provident Building, Chattanooga (1943).

Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).

Dr. Hiram A. Laws, Jr., James Building, Chattanooga.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Geo. W. Brasher, Jackson.*
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.

Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1943).

Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennessee (1943).

*Deceased.

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	J. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	R. M. Workman, Clarksville	M. L. Shelby, Clarksville	Jack Ross, Clarksville
Obion			D. S. Latimer, Union City
Overton	W M. Breeding, Livingston		A. B Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood	W. W. Hill, Harriman	
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. J. O. Manier, Nashville
Dr. L. W. Edwards, Nashville
Dr. A. M. Patterson, Chattanooga
Dr. E. G. Wood, Knoxville
Dr. W. L. Williamson, Memphis

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville
Dr. A. H. Lancaster, Knoxville (1945)**
Dr. A. F. Cooper, Memphis (1944)
Dr. A. M. Patterson, Chattanooga (1943)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. J. L. Hamilton, Chattanooga (1944)**
Dr. R. R. Crowe, Nashville (1943)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Kee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1943)
Dr. John B. Steele, Chattanooga (1943)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1943)
Dr. T. R. Ray, Shelbyville (1943)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. J. B. Stanford, *ex officio*, Memphis

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1943)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1943)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1943)
Dr. J. M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. H. B. Gotten, Memphis (1944)**
Dr. D. W. Smith, Nashville (1943)

COMMITTEE ON MEMOIRS

Dr. J. P. Gilbert, Chairman, Nashville (1944)*
Dr. James O. Walker, Franklin (1945)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1943)
Dr. J. L. Hankins, Johnson City (1943)

*Deceased. **In service.

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. W. O. Tirrill, Jr., Nashville (1944)**
Dr. J. B. Fitts, Chattanooga (1944)
Dr. Thos. B. Drinnen, Knoxville (1943)**
Dr. C. W. Friberg, Johnson City (1943)
Dr. Paul Warner, Nashville (1943)**

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. Jack Chesney, Knoxville (1943)**

COMMITTEE ON CANCER

Dr. Ralph Monger, Chairman, Knoxville (1943)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. W. J. Sheridan, Chattanooga (1944)**
Dr. C. H. Heacock, Memphis (1944)
Dr. Howard King, Nashville (1943)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. R. C. Robertson, Chattanooga (1944)**
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1943)
Dr. Robert F. Patterson, Knoxville (1943)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. E. L. Rippy, Nashville (1943)**

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. Van Fletcher, Chattanooga (1945)**
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Troy P. Bagwell, Knoxville (1943)

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatric Society—
President—Dr. Frazier Binns, Nashville**
Vice-President—Dr. O. L. Von Canon, Chattanooga**
Secretary—Dr. Gilbert Eblen, Knoxville**

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland**
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis**
Vice-President—Dr. Franklin B. Bogart, Chattanooga**
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 5

MAY, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

THE PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS, DENTISTS, AND VETERINARIANS—RESPONSIBILITIES, ACCOMPLISHMENTS, AND FUTURE PROBLEMS, Harold S. Diehl, M.D., Minneapolis, Minnesota . . . 163

THE ESSENTIAL QUALIFICATIONS OF A GREAT SURGEON, Ernest Sachs, M.D., St. Louis, Missouri . . . 173

TENNESSEE DOCTORS AND THE MILITARY SERVICE . . . 180

EDITORIAL . . . 186

RESOLUTIONS . . . 188

NEWS NOTES AND COMMENTS . . . 191

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE . . . 195

MEDICAL SOCIETIES . . . 196

OTHER MEDICAL SOCIETIES . . . 196

ABSTRACTS OF CURRENT LITERATURE . . . 196

BOOK REVIEW . . . 200

LISTS OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION . . . 202

STANDING COMMITTEES . . . 203

INDEX TO ADVERTISERS . . . XXII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

SCIENTIFIC BACKGROUND

Mead's Cereal was introduced in 1930, and Pablum in 1932, by Mead Johnson & Company. Since then, the growing literature indicates early recognition and continued acceptance of these products and the important pioneer principles they represent.

☆ ☆

In response to requests from pediatricians, we are also marketing PABENA—precooked oatmeal, enriched with vitamin and mineral supplements. PABENA closely resembles Pablum in nutritional qualities, and offers the same features of thorough cooking, convenience and economy. Supplied in eight-ounce cartons.

Samples on request. Mead Johnson & Company, Evansville, Ind., U. S. A.

BOSTON ★ JUL 1 1943 ★ MEDICAL LIBRARY

Precision
IN ESTROGENIC THERAPY

The application of new refinements in diognostic technique enhonces the effectiveness of modern estrogenic theropy.

Now, completely sotisfoctory treotment is easily planned and maintained.

These three simple steps ensure precise, controlled results with a minimum of time and effort:

1 **SIMPLIFY DIAGNOSIS**

Reveol the degree of ovorian function by staining the voginol smeor with Single Differentiol Stoin (Shorr).



2 **SELECT THE MEDICATION**

Choose a suitoble dosoge form from the convenient voriety of Wyeth Estrogenic Preporotions.



3 **ACCURATELY DETERMINE RESPONSE TO THERAPY**

Ascertoin the effect of medicotion by observing the chonges reflected in the stained vaginal smear.



*Wyeth's**

ESTROGENIC PRODUCTS

NATURAL

SOLUTION OF ESTROGENS

Ampoules: 5,000 International Units in 1 cc. corn oil
1 cc. ampoule – Boxes of 6, 50 and 100
5 cc. ampoule – Boxes of 1 each

Ampoules: 10,000 International Units in 1 cc. corn oil
1 cc. ampoule – Boxes of 6, 50 and 100
5 cc. ampoule – Boxes of 1 each

Ampoules: 20,000 International Units in 1 cc. corn oil
1 cc. ampoule – Boxes of 6, 50 and 100

SYNTHETIC

DIETHYLSTILBESTROL
(Stilbestrol)

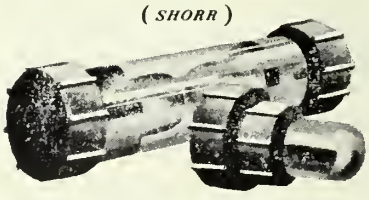
Tablets: 0.1 mg., 0.5 mg. } Bottles of 40 and 500

Ampoules: 0.5 mg. in 1 cc. corn oil } Boxes of 6, 50 and 100
1.0 mg. in 1 cc. corn oil

Suppositories: 0.1 mg., 0.5 mg. } Boxes of 12

*Reg. U.S. Pat. Off.

SINGLE DIFFERENTIAL STAIN
(SHORR)



Requiring only a 3-minute office procedure, Single Differential Stain (Shorr) reveals the extent of cornification in the cells of the vaginal smear, providing an index of ovarian function essential to proper diagnosis and treatment.

Shorr Stain is available in packages of two Pondits*, each containing sufficient dry material for preparing enough stain for 200 slides.



NOW AVAILABLE: A new folder containing complete information about this time-saving Wyeth product. It contains directions for applying the stain and full-color reproductions of characteristic stained slides. Your Wyeth representative has a copy for you.

JOHN WYETH & BROTHER, INC., PHILADELPHIA

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M. HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI MAY, 1943 No. 5

THE PROCUREMENT AND ASSIGNMENT SERVICE FOR PHYSICIANS, DENTISTS, AND VETERINARIANS—RESPONSIBILITIES, ACCOMPLISHMENTS, AND FUTURE PROBLEMS

HAROLD S. DIEHL, M.D.,* Minneapolis, Minnesota

A little more than a year has passed since October 30, 1941, when the President of the United States by executive order created the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians. The reason for this order was the realization that adequate medical and health services for both military and civilian populations are essential for the effective prosecution of a war. The action was taken upon the recommendations of the American Medical Association, the American Dental Association, the Surgeons General of the Army, the Navy, and the United States Public Health Service, and Mr. Paul V. McNutt, as chief of the Office of Defense, Health, and Welfare Services. This makes the Procurement and Assignment Service, morally at least, responsible both to the government of the United States and the medical, dental, and veterinary medical professions of this country. In view of this it is appropriate that a brief report should be made at this time of the accomplishments of this service to date and the problems and responsibilities remaining for 1943.

In general terms, the responsibility of this service is to plan for the distribution of the services of the physicians, dentists, and veterinarians of this country so as to meet as effectively as possible the needs of both the armed forces and the civilian population during the war.

The plan of procedure contemplated by the directing board at its early meetings was to proceed in an orderly manner to appraise the medical personnel of this country, their qualifications, and their availability for military or civilian services in case of war. Unfortunately, the ink was hardly dry on the President's executive order before we were plunged into the midst of war. This made it necessary for the Procurement and Assignment Service to formulate policies, develop its organization, and begin to function all at the same time. There was no blueprint to follow, no past experience upon which to draw.

Organization and Administrative Relationships

Although its establishment antedated that of the War Manpower Commission, the Procurement and Assignment Service was made administratively responsible to that organization immediately upon its creation. This made the Procurement and Assignment Service what might be called the medical division of the War Manpower Commission. Although official channels between the Pro-

*Member, Directing Board, Procurement and Assignment Service; Dean of the Medical Sciences, University of Minnesota.

curement and Assignment Service and the War and Navy Departments are through the Director of the War Manpower Commission, the vast majority of the relationships with the Army and the Navy are conducted directly and informally with the Offices of the Surgeons General of these services. In fact, the Directing Board of the Procurement and Assignment Service holds monthly meetings with the Surgeon General of the Army, the Surgeon General of the Navy, the Surgeon General of the United States Public Health Service, the director of Selective Service, and such members of their staffs as they elect to accompany them. The results of these conferences and informal relationships have been so satisfactory that very few communications through official channels have been necessary. Without this splendid understanding and effective cooperation on the part of these services, the task of the Procurement and Assignment Service would have been an impossible one.

The organization of the Procurement and Assignment Service consists of a directing board, a central office in Washington, a consultant's office in the headquarters of the American Medical Association in Chicago, and corps area and state committees, with local, county, or district committees serving in an advisory capacity. The physicians on these various boards and committees have given unselfishly and unstintingly of their time and services. Without compensation, at great personal sacrifice, and at times in spite of uninformed or malicious criticism, these men have rendered and are continuing to render an invaluable and patriotic service to our country in its war effort. It is primarily to the chairmen and the members of state and local Procurement and Assignment Service committees that the real credit for the accomplishments of this service belongs.

With the American Medical Association and the various state medical societies, the Procurement and Assignment Service has a most intimate, though unofficial, relationship. In 1940 the American Medical Association at great expense and effort prepared a roster of all the physicians in the United States with detailed information in regard to their training, experience, and qualifications. This invaluable roster was made available to the Procurement and Assignment Service immediately after its organization. In addition, the American Medical Association has made its staff and facilities available at all times to aid in the work of the Procurement and Assignment Service. In like manner, state medical societies not only have cooperated wholeheartedly, but in many instances have provided a large portion of the expenses and carried much of the work and the state and local Procurement and Assignment committees. Without this assistance and support, the work of the Procurement and Assignment Service could not possibly have been carried out. To these various medical associations we acknowledge our deep indebtedness.

Accomplishments of 1942

With the rapid expansion of our armed forces last year, the first responsibility of the Procurement and Assignment Service was clearly to cooperate with the Army and the Navy in the recruitment of the medical officers which they needed. Our boys, and now our girls, whether they be in Africa, India, Guadalcanal, Australia, Alaska, or the continental United States, must be provided with the best of medical care. I am sure that everyone would agree that the provision of medical services to those who are risking and in many cases sacrificing their lives in defense of our country deserves first priority in the allocation of physicians.

Second, probably, comes the need of the medical schools for teachers to train more physicians under the accelerated program of medical education. These institutions, which have been mobilized 100 per cent for the war effort, serve as the only source of supply for additions to or replacements of physicians for both the armed forces and the civilian population.

Next, in order of priority, comes the provision of medical care for workers in the war industries. These workers must be kept on the job, producing the materials of war without which armies and navies are helpless in modern warfare.

This leaves as last on our priority list the

needs of the general population for medical services. This does not mean that the civilian population will have to get along with what is left after the armed forces, the medical schools, and the war industries have taken all the physicians that they want. The effective prosecution of a modern war requires the mobilization of the entire resources of the nation in support of the war effort. Under such circumstances, it is clearly necessary that a sufficient number of physicians be retained to provide essential medical services for the civilian population. Recognizing this, the Army and the Navy have agreed not to grant commissions to physicians declared essential by the Procurement and Assignment Service for civilian medical care. Likewise, local Selective Service boards have been directed by national headquarters to secure the recommendation of the Procurement and Assignment Service whenever they are considering the classification of a physician, dentist, or veterinarian.

Recruitment of Physicians in 1942

At the outbreak of war there were approximately 13,000 medical officers on duty in the Army and the Navy. At the end of 1942, approximately one year later, this number had increased to over 42,000. The recruitment of such a large number of physicians in a short period of time was a colossal undertaking. Except for a few single men who came under the jurisdiction of Selective Service, there was no authority to compel physicians to go into the service. What has been accomplished has been entirely on a voluntary basis. The Procurement and Assignment Service possesses no authority to say to a physician that he must go into the service or that he must stay at home. Some of the Army recruiting boards in their zealous efforts to recruit physicians presumed and even threatened to use authority which they did not possess. Actually neither these boards nor the Procurement and Assignment Service has authority to exercise compulsion upon anyone.

Early in last year it seemed for a time that physicians were slow in responding to the call for their services. But by the end of the year over fifty per cent of the practicing physicians under forty-five years of age had entered the armed services. No other professional group in this country has ever been called upon for such public service or responded to a call so magnificently.

During the first World War the recruitment of physicians for the Army and Navy was carried on with little or no consideration for the needs of the civilian population. Many areas and communities were left without medical service, while in other areas excessive numbers of physicians remained in civilian life. To help prevent a similar situation this time, the Procurement and Assignment Service established quotas as to the number of physicians which each state was expected to supply in 1942. These quotas represented the proportionate share of the 42,000 medical officers requested by the armed forces, which it seemed equitable for each state to provide, taking into consideration the population of the state, the number of physicians in civilian practice, their ages, distribution, etc. These quotas for states with relatively few physicians in relation to population required only ten to fifteen per cent of the practicing physicians, while at the other end of the scale the quotas of states such as New York and Illinois represented up to thirty per cent of the physicians actively engaged in civilian practice.

The country as a whole and all but five individual states met or exceeded the quotas assigned to them for 1942. From a few areas, particularly in the South, too many physicians have gone into service, leaving the civilian population without adequate medical care. Some of these physicians held commissions in the Reserve Corps of the Army or Navy and were called to active duty; others volunteered early before the Procurement and Assignment Service programs became operative; others were released by the State Procurement and Assignment Committees because it seemed that there were sufficient numbers of doctors remaining to care for the civilian population. In some instances these calculations were upset by illness or death among

the remaining physicians or by the unanticipated influx of large populations in connection with war industries or war activities. I know of one county in which there were three physicians. The youngest of these was declared "available" for military service. Subsequently one of the two remaining physicians has died, and the other has had a "coronary attack," which seriously limits his availability for practice. The result is that this country is now critically short of medical service.

The Maintenance of Civilian Medical Services

In order to safeguard civilian medical services, the chairman of the State Procurement and Assignment Committees have been directed to designate as "essential" those physicians considered necessary for the provision of essential civilian medical services.

To aid in this *medical schools* have been authorized to submit lists of their faculty members, marking as "available" those whom they could release for service with the armed forces, but listing as "essential" those who constitute the minimum staff necessary to conduct a sound teaching program. These reports specify the subjects that each individual is teaching and the amount of time he was devoting to such teaching. All lists of "essential teachers" as submitted by the medical schools are reviewed by the Medical Education Committee and the Allocation Committee of the Procurement and Assignment Service. The opinion of these committees in regard to the lists is then sent to the chairmen of the respective state committees who are responsible for decisions as to who is "available" and who "essential." The objective is to retain adequate teaching staffs for the medical schools, but to do so without withholding from military service more than the minimum number of men who are physically qualified for military service.

Analysis of the medical school lists which were submitted last summer for the current academic year showed that up to that time twenty-one per cent of the physicians on medical school faculties were in Army or Navy service as compared to twelve per cent of all the physicians in the United States. In addition, the medical schools listed as "available" twenty-five per cent of the physicians of military age remaining on their staffs.

Industrial medical service assumes increasing importance in connection with the war. The criteria as to the conditions under which physicians in industry should be considered "essential" were prepared by the Committee on Industrial Health and the Procurement and Assignment Service. This committee recommended essential industrial medical services be continued, but that physically fit young physicians of military age serving in industry should be replaced as rapidly as possible by those who are not physically fit or otherwise ineligible for military service.

Public health services must be maintained for the protection of the health of the armed forces as well as of the civilian population; yet the staffs of these services contained many physicians with training and experience urgently needed by both the Army and the Navy. Epidemiologists, parasitologists, bacteriologists, statisticians, and public health administrators are urgently needed for the prevention and control of diseases among our soldiers who are serving in all parts of the world. In order that public health services might be maintained and yet as many as possible of these specialists relieved, all state, city, and county health departments were requested to prepare lists of personnel, indicating which ones of military age could be released for military service and which ones are considered as essential for the effective functioning of the health departments. These lists are reviewed by the Public Health Committee of the Procurement and Assignment Service.

Hospitals.—Most of the members of the clinical staffs of hospitals are physicians practicing in the community and are designated as "available" or "essential" on the basis of the importance of their services to the community as a whole rather than to any individual hospital. On the other hand, in many of the large charity and teaching hospitals, certain residents and physicians in charge of special services, such as the

X-ray and laboratory departments, are essential both for the clinical instruction of medical students and for the adequate care of the hospital patients. With this group the problem again is to release as many as possible for service with the armed forces and still retain the minimum number essential for the proper functioning of the institution. To accomplish this hospitals approved for residencies have been requested to prepare lists of residents and other physicians who were on full-time status or chiefs of large charity services, indicating those whom they consider to be the minimum essential staff of the hospital. These lists have been reviewed both by the Hospital Committee and the respective state committees of the Procurement and Assignment Service.

"Boom Towns."—During the past year many towns have experienced a mushroom growth as a result of war industries or military or naval installations. Some of these have given rise to critical shortages of medical services. Numerous articles have been written about these areas, frequently with gross exaggerations as to their number and seriousness. In many instances the workers in these war industries are recruited from persons already residing in the area. In others, if the influx of population is not excessive, the physicians in the community are able to provide the necessary medical care. On the other hand, there are a number of areas in which the shortage of medical services is truly critical. I have visited one community which in a little more than a year has grown from 15,000 to 65,000 population, and it is expected that by July, 1943, the increase will reach 110,000. Another area which had approximately 40,000 population before the war now has 110,000 and is expected to have 145,000 by midsummer. In the country as a whole there are a number of such areas.

Last summer and fall a number of agencies in Washington became concerned about the shortage of medical services in these areas, and numerous conferences were held to define lines of responsibility and to outline procedures to deal with the situation. On the basis of these conferences, the directing Board of the Procurement and Assignment Service formulated certain policies in regard to the investigation of the need and the provision of medical care in critical shortage areas. These policies, which were approved by the United States Public Health Service, by the trustees and the War Participation Committee of the American Medical Association, and by the War Manpower Commission, placed the primary responsibility for the investigation of these areas and for the formulation of plans to meet these needs upon the Procurement and Assignment Service and the local medical profession with the cooperation and assistance of the United States Public Health Service. In approving these principles the War Manpower Commission said: "This approval is given with the understanding that the plan places a grave responsibility on the organized medical profession, and that the Procurement and Assignment Service has the obligation of assuring that this responsibility is effectively discharged."

To meet these responsibilities, the directing board requested detailed reports from the state chairmen concerning changes in population, the medical personnel, and the medical and health facilities available and needed in communities or areas in which there are war industries or war activities or in which there is a known or expected shortage of medical services. In investigating the needs of these areas the State Procurement and Assignment Committees were advised to seek the "cooperation of the state medical societies, the state dental societies, the state health officers, of industry, of organized labor, and of other agencies, such as the State Defense Council, which should be able to make significant contributions to the solution of this problem." In addition, the Surgeon General of the United States Public Health Service has directed the regional representatives of this service to cooperate in the conduct of these investigations.

When these investigations revealed a need for additional physicians or other medical or health facilities or personnel, the principles provided that: "Whenever possible civilian needs as determined by these com-

mittees should be met through local arrangements, resources, and agencies. In case assistance is needed for the organization, administration, or financing, of necessary medical services in these areas, the responsibility for formulating the plan best suited to each particular situation should devolve upon an agency which should include representatives of the State Health Department, the State Medical Society, and the State Dental Society with the cooperation and support—financial and technical—of the appropriate federal agencies, the administration of such plans to be delegated to the appropriate official state agency." It is recognized that the United States Public Health Service is the federal agency which will be responsible for the provision of funds or personnel which may be required to provide the necessary health service in these areas.

In the formulation and execution of this program, there has been complete harmony and cooperation between the directing board of the Procurement and Assignment Service and the United States Public Health Service as represented by Surgeon General Thomas Parran and Assistant Surgeon General Warren Draper. Before the close of 1942 this program was inaugurated as a cooperative enterprise between the medical profession, the Procurement and Assignment Service, and the United States Public Health Service.

Problems of the Procurement and Assignment Service for 1943

The end of the year means little in war except to provide a convenient point at which to end and begin reports. Similarly, the responsibilities and the problems which faced the Procurement and Assignment Service in 1942 carry over into 1943. Changes in emphasis occur, but these are gradual and related to the over-all situation. The recruitment of additional physicians to serve with the armed forces and the maintenance of essential civilian medical services are still our major responsibilities. During the past year, however, there have been important changes in the situation confronting us. A year ago we had what seemed to be an almost unlimited supply of physicians; the needs of the armed forces for medical officers appeared easy to fill; war industries were just beginning to draw workers and their families from far and wide; and there seemed no problem of providing medical care for the civilian population.

With the advent of 1943, an analysis of the physicians of the country revealed that the statement about our having 180,000 physicians was misleading, and that withdrawals from this group were already approaching the limit of the available supply. The figures show that we do have a total of approximately 180,000 physicians registered in the United States. Of these, however, approximately 15,000 occupy full-time positions in public health departments, medical schools, insurance companies, or other governmental or private agencies not engaged in the practice of medicine; 28,000 are over sixty-five years of age, and for planning purposes are counted as only one-third effective by the Procurement and Assignment Service; it is estimated also that approximately five per cent, or a total of 7,000 of the physicians under sixty-five, are completely or partially ineffective; 3,000 are resident physicians in hospitals; and approximately 42,000 were in the armed forces on the first of January. This leaves only about 94,500 effective physicians remaining in civilian practice. There are areas in most states which have never had more than one doctor to two, three, or even more thousands of people. We cannot hope to bring about the millennium in these areas during the war when there is an over-all shortage of physicians. On the other hand, in areas in which a shortage of physicians has been created by the war a ratio of 3,000 or more people per physician is considered by the directing board as probably constituting a critical situation. On a basis of this over-all ratio of one physician for 1,500 population, approximately 83,000 physicians are needed to provide essential medical services for the civilian population. This leaves only 11,500 physicians who can be considered as "available" from the civilian practice in 1943 to enter the military services. In addition, between 4,000 and 5,000 hos-

pital interns and residents will become available for military service during 1943.

Recruitment for the Armed Forces

On the basis of their established tables of organization, the authorized expansion of the Army and Navy in 1943 would require between 40,000 and 45,000 additional medical officers. In spite of this, both the Surgeon General of the Army and the Surgeon General of the Navy have accepted the above computations as to the number of physicians who can be safely withdrawn from civilian practice. This means that they will have to adjust their plans of organization and operation so as to get along with less medical officers than they consider ideal. Both the Army and the Navy, however, are willing to make these adjustments. In accepting the recommendations of the Procurement and Assignment Service as to the number of physicians to be recruited from the civilian population in 1943, the Army and Navy have placed upon this service, and through it upon the medical profession, the responsibility of recruiting available physicians up to this number.

As a guide in this recruitment, tentative state quotas for 1943 have been set up. These quotas are based upon the physician-population ratio in the state after the 1942 quota was met. Credit was given for physicians recruited in excess of the 1942 quota, while deficits on the 1942 quota were added to the new quotas. According to these computations, fourteen states have no quotas and only fifteen states have quotas of more than a hundred physicians for 1943.

The fact that some of these states have had no second quotas does not necessarily mean that no more physicians from these states should enter military service. Even in those states in which there is an overall shortage of physicians, there probably are metropolitan areas from which some physicians can and should be released. If other areas within these states are critically short of physicians, efforts should be made to induce some of the available physicians from the metropolitan areas to move into these shortage areas. If they are unwilling to do so, they should be declared available for military service and persuaded to apply for commissions.

As a basis for future planning, State Procurement and Assignment Committees have been asked to reappraise the physicians remaining in their states as to their availability or essentiality, their age, professional qualifications, physical capacity, and family responsibilities. As soon as these surveys have been completed, summary reports will be sent to the central office of the Procurement and Assignment Service, and revision of certain state quotas may be made.

Recruitment Procedure

The Procurement and Assignment Service proposed and the Army agreed that recruitment in 1943 should be done by the Procurement and Assignment Service instead of by Army recruiting teams. Briefly summarized, the procedure agreed upon is as follows: The state chairmen submit monthly lists of available physicians to the central office. From this office letters are sent to these physicians, requesting them to apply for commissions and enclosing cards addressed to the state chairmen, indicating their preference for Army, Navy, or Air Corps Service. The names of those choosing Army service are sent to the nearest Army Officer Procurement Board, which supplies the necessary application forms and authorizes physical examinations. A similar procedure is followed for those who prefer to serve in the Navy. In case a physician does not apply for a commission when requested to do so, it is the responsibility of the Procurement and Assignment Service, in cooperation with the local medical society, to induce him to accept the assignment which he has been given.

Some predict that it will be difficult to secure the number of physicians agreed upon for the armed forces in 1943. They point out that most of those who really want to serve are already in service. This is doubtlessly correct, but we feel certain that many more physicians will be willing to go when they are told specifically and individually that their services are needed. For others some persuasion may be necessary. As a whole, the medical profession has re-

sponded magnificently to our country's call. It is but a very small minority who would place selfish interests above professional and patriotic responsibilities.

A few days ago, however, I heard of a young physically fit physician who left a hospital residency to go into private practice. To one who asked him about army service, he replied that his draft board would defer him. Upon such individuals it would be possible for the Army, Navy, and Selective Service to exert pressure. To do so, however, would require the issuance of general directives that would reflect unfavorably upon the medical profession as a whole. It is our hope that medical societies will set up local committees to cooperate with the Procurement and Assignment Service in the recruitment of those physicians of military age who are considered available for service with the armed forces. As a specific plan of procedure it is recommended that the officers of county medical societies act as committees to make personal contact with these physicians who are requested by the Procurement and Assignment Service to apply for commissions.

The time has come when every physically fit, available physician under forty-five years of age is needed to care for the boys who are risking their lives in the service of our country. Quoting a statement which Dean Thorald Sollmann of Western Reserve University made to a recent graduating class in his medical school: "The time has come when it doesn't matter much that someone else evades his obligation. Each must live with his own conscience; and he who has none is missing something. Patriotism is what you give, not what you get; and what *you* give, not what the other fellow gives or withholds. And if it should turn out, as it may in a topsy-turvy world, that he gets the plums and you get the husks, well—a good doctor can lead a useful and satisfying life anywhere and anytime without plums."

Meeting Civilian Medical Needs

The problems of civilian medical care are becoming increasingly acute as more and more physicians are taken into the armed forces. This country has more physicians in relation to population than any other country in the world, and there will be plenty available to provide essential, though not luxury, medical services for both the armed forces and for the civilian population if their services are properly distributed and utilized economically and efficiently. At the beginning of the war, there was approximately one effective private practitioner of medicine to every 1,022 persons in the United States. At the end of 1942, this figure had increased to one to 1,361, and by the end of 1943 it will be approximately one to 1,500. It is reported that England has one physician to approximately 230 persons in the armed forces and one physician to 2,700 in the civilian population. In this country the corresponding figures at the present time are approximately one to 150 for the armed forces and one to 1,400 for the civilian population. Germany is said to have approximately one physician to between 8,000 and 12,000 population. From this one can only conclude that the United States is relatively well off in terms of medical care both for the civilian population and for the armed forces.

As stated earlier, at the end of 1942 more than half of the practicing physicians under forty-five years of age in this country were in the Army or Navy. By the end of 1943 practically all of those remaining who are physically fit and can be spared from civilian practice will be required to meet the minimum needs of the armed forces. This is the age group which is most active in medical practice and carries the biggest load of medical care. With them no longer available, the public is certain to feel a shortage of medical care. These shortages, however, need not be serious if the services of the remaining physicians are utilized intelligently and efficiently.

To do this it is important that patients do not call physicians unnecessarily and that, so far as possible, when they need a doctor they make appointments in advance so as to conserve the physician's time. It will be necessary also for physicians individually and as a group to plan to provide the public with essential medical services,

whether they be in the office, the hospital, or the home. Most physicians will need to add to their already long hours. Many who have completely or partially retired from practice will have to "carry on" once again. And all will have to share the responsibility for the medical services, including house calls, which normally would be rendered by the physicians who are now in service.

Medical Schools.—The students in medical schools are almost all members of the armed forces. Their education must be continued on an effective level. The lists of essential teachers submitted by medical schools indicate that some schools have already lost so many members of their faculties that it will be difficult, if not impossible, for them to conduct a satisfactory instructional program. Other schools have been more conservative and can release additional physicians in 1943 toward meeting the needs of the armed forces.

War Industries.—The continued expansion of war industries is creating an increasing demand for physicians. The Procurement and Assignment Service and the Council on Industrial Medicine of the American Medical Association are attempting to cooperate with the war industries in securing the physicians which they need. Efforts are being made, however, to secure physicians for these industries who are not eligible for military service and to replace as rapidly as possible the physicians in these industries who would be eligible for such service.

Public Health Services.—Most health departments are already functioning on skeleton staffs and are unable to release additional physicians for military service. In fact, some health departments are so urgently in need of trained personnel that the United States Public Health Service is supplying such personnel on a "lease-lend" basis.

Hospitals.—The situation in the hospitals will become increasingly difficult. In order to conserve the time of physicians, there will be a tendency to hospitalize more patients. Medical school graduates who hold commissions in the Army and Navy will be granted a year, but only a year, of internship before being called to active duty. One result of this is that many of the large hospitals which previously had two-year internships are taking more first year interns in order to "cover" their services. This can only mean that some hospitals will have less interns than normally.

Hospital residencies will be continued, but the number of residents who can be deferred from military service will be very limited. Consequently, hospitals will find it necessary to depend almost entirely upon residents who are not acceptable for military service.

Critical Shortage Areas.—It is estimated that approximately 6,000,000 people in this country have moved their homes as a result of the war. The provision of medical and health services to this group is one of the most important problems facing the medical profession and the Procurement and Assignment Service today. The principles and procedures for evaluating and meeting the needs of these groups were formulated in 1942, but most of the job still remains to be done.

The surveys which have been completed indicate that in many instances the urgent need is not for more physicians, or not only physicians, but rather for hospitals, nurses, or public health services. In a considerable number of areas the local medical societies in cooperation with public health departments and housing and welfare groups have been able to meet the needs for physicians either by having the doctors in the community or in neighboring communities give specific amounts of time to the shortage area or by inducing other physicians to move into the area. Reports from the states indicate that more than 900 physicians have taken positions in war industries or moved into "shortage areas" during the past year and that approximately two-thirds of these moves have been the result of efforts of state or local Procurement and Assignment chairmen or committees. Similar methods doubtlessly can and will meet these needs in many other communities.

Some of the "boom town" communities, on the other hand, need considerable num-

bers of physicians as well as hospital beds, nurses, and other health services. Although the ratio of one doctor to 1,500 population has been utilized by the Procurement and Assignment Service for planning purposes as the over-all number of physicians required to provide essential medical services to the civilian population, in shortage areas, a ratio of one to 3,000 has been accepted as the coverage beyond which the situation would be considered critical.

The responsibility for formulating plans to meet these needs has been placed primarily upon the Procurement and Assignment Service and the state and local medical societies. Most of the residents of these areas are earning good incomes and should be able to support physicians on a private practice basis. If it is necessary in special situations to provide partial subsidy to a physician for a limited period of time to enable him to move into such an area and establish himself in practice, funds for such subsidy may be requested from the United States Public Health Service. In some areas prepayment plans for medical services under the supervision of the state medical society are meeting the need. In rare instances it may be necessary to assign an officer of the United States Public Health Service to practice temporarily in the area. Such an assignment, however, will be made only as a last resort and upon the joint recommendation of the Procurement and Assignment Service and the United States Public Health Service.

In meeting these situations the medical profession is faced with a new responsibility. Medical societies have always been concerned with keeping their members abreast of new development and progress in medicine and with the maintenance of high standards of ethics and practice among their members. Never before have they had reason to feel responsibility for the availability or adequacy of medical care for the general population. The laws of supply and demand have largely taken care of that. Now, however, the war has given rise to a new problem of medical care which must be met. The physicians of this country are given the opportunity of meeting these needs in the way that one deems best. We sincerely hope and believe that they will be able to meet this challenge.

Conclusion

As the representative of the directing board of the Procurement and Assignment Service, I welcome the opportunity this occasion has provided to briefly summarize these major problems which confront each and everyone of us in the medical profession in the critical times remaining before our country can emerge victorious in the titanic struggle in which we are engaged. In meeting such responsibilities, the medical profession has always done its full share, and we are confident that, come what may, the physicians of this country can be depended upon to do their share and more in meeting their problems and responsibilities.

THE ESSENTIAL QUALIFICATIONS OF A GREAT SURGEON*

ERNEST SACHS, M.D.†

In the past few years medical fraternities at a number of institutions have created lectureships in memory of some eminent graduate or faculty member. This idea, initiated by the students, has seemed to me an admirable one, for it not only gives the particular fraternity which has started such a lectureship an ideal to work toward, but also forms a link between them and past masters; furthermore, it is an inspiration for the entire student body. It is not surprising that the Alpha Kappa Kappa Fraternity has elected to honor one of its members who was one of Vanderbilt's most famous teachers, Dr. William Haggard. It is of interest that Doctor Haggard was the son of an eminent teacher of medicine. The son, however, in whose honor this lectureship has been created attained a much more prominent position in medicine than his father. In fact, there are few men who have had as many honors heaped on them as Doctor Haggard. He was elected president of practically every important surgical organization of which he was a member, and he was given these honors because of his outstanding ability as a surgeon and a man. In addition to this ability, he had a rare charm which impressed all who met him. He was a most delightful and entertaining companion. In fact, with no effort on his part, he was the center of any gathering he attended. I used to see him every year at the Southern Surgical Association, where he always took an active part in discussions of subjects that particularly interested him, and he always had something of value to contribute. He was an admirable citizen and deeply interested in many civic undertakings in this city as well as in the state. During the first World War he was president of the Southern Surgical Association, and his presidential address on that occasion was a ringing arraignment of the Huns. What a vitriolic arraignment of them he would have made today! But aside from his many activities, his principal ability and interest lay in surgery, and in this field he was outstanding. Hence, it seems quite appropriate to take up with you tonight the essential qualifications of a great surgeon.

These may be grouped under four headings: (1) a thorough training, an important part of which is a prolonged contact with patients; (2) experience in some form of research; (3) honesty; and (4) judgment.

In taking up these various headings, I am going to illustrate them by telling of men who seem to me especially to personify these qualities. The one man who stands out above all others because of his vast clinical experience, and the way in which he applied it in teaching students, is Neusser of Vienna. It is true he was not a surgeon, but he illustrates better than anyone else what I mean. He used to hold his clinic every morning at seven o'clock, and his method of conducting the exercise was one that few others could have imitated because few others had seen the vast amount of clinical material that he had. He would bring in a patient to the clinic, and pick out one particular symptom or sign, and then would lecture on this one symptom for two hours. I used to attend these exercises regularly, and they made a profound impression on me. For example, one day he brought in a patient who had an obvious jaundice. Without any other examination of the patient, he devoted two hours to a discussion of the various conditions in which jaundice might occur, and discussed the significance of this one symptom in these different diseases. The next day with this as a background, he would bring the same patient into the clinic and work out, with the aid of the students, what the particular cause of this patient's jaundice was. In the course of a semester, he would thus lay before his students much of the vast amount of clinical experience that he had stored up in the course of years.

*The William Haggard Memorial Lecture delivered at Nashville, Tennessee, November 27, 1942.

†Professor of Clinical Neurological Surgery, Washington University School of Medicine, St. Louis, Missouri.

But such a wealth of experience cannot be acquired in a short time. Clinical insight takes many years to acquire. There has been a tendency, especially in this country, to put men who have not had this background into prominent clinical positions and the result not infrequently is rather distressing.

By contrast to what I have just told you about Neusser, who was as expert in therapeutics as in diagnosis, let me cite this experience which I had some years ago. I had operated upon a patient with an eighth-nerve tumor, who, following the operation, developed a typical lobar pneumonia. It was long before the days of chemotherapy, even before the days of pneumonia serum. We carried the patient along for seven days, and it looked as if he might weather the storm, but on the morning of the eighth day, he did not look quite so well. Fearing that there might be something that we had omitted in the care of this patient, I called in a young man who, I had been told, was a very keen clinician. I stood at the foot of the bed while he examined the patient, and I never have seen a more thorough examination of the chest. He set the man up, he laid him down, he turned him over, he tried the coin test, but by the time this thorough examination was completed, the patient was worn out. And then, after having elicited all the physical signs, he expressed the opinion that he was not sure whether it was pneumonia or fluid in the chest. I asked him whether he wanted to aspirate, but he said no, he wanted to take him to the X-ray room and put him on a tilting table to determine whether there was fluid present. I remonstrated, but he assured me that there was no harm in doing this. The patient died on the tilting table in the X-ray room. When I met this doctor sometime later, he said he thought the X-ray examination was the cause of the man's death. Since he was considerably younger than I was, I quoted a statement of William Osler, which, I am thankful to say, I have never forgotten: "Don't move a pneumonia." Had this young man had much clinical experience, he never would have subjected the patient to such an examination, but his knowledge was based for the most part on reading, not on actual experience with patients.

On the other hand, the value of vast experience is well illustrated by the following case. A boy was brought in to me semicomatose with multiple abscesses of his scalp. He had increased intracranial pressure, choked discs, and obviously had one or more brain abscesses. I was puzzled and disturbed by the multiple abscesses on his scalp, and since it was before the days of ventriculography, the localization of the lesion was difficult to determine. The X-ray picture of the boy's head showed what I thought was a diffuse osteomyelitis of the bone, but our X-ray man, Doctor Moore, took one look at the plate and said: "If that patient were not here in St. Louis, I would say that this is a case of yaws." The boy was the son of an Army officer, who, a few months before, had been stationed in the Philippines. There the boy had been in the habit of running around barefoot, and ever since his return to this country, he had had multiple abscesses on his feet and subsequently on his head; and obviously his disease *was* yaws.

The second prerequisite for a great surgeon is experience in some form of research, and this is well illustrated by the career of my former teacher, Victor Horsley, who is generally recognized as the father and founder of neurological surgery. While he was acquiring his clinical experience, he devoted part of every day to work in the physiological laboratory, and while there he carried out his classical work on the functions of the motor area. He studied the functions of the various areas in the precentral gyrus, and when finally he was appointed surgeon to the National Hospital in London, he had an opportunity of applying his physiological experiences to clinical cases. The first patient he saw there was one who had a Jacksonian convulsion beginning in the thumb. Neurologists were all of the opinion that the lesion was in a certain portion of the head, but Horsley, basing his opinion on his physiological experiments, insisted that the lesion must be in the thumb center of the precentral gyrus.

He exposed this area at operation, and removed a small benign tumor that was situated there. His anatomical and physiological knowledge of the brain enabled him, in spite of what we look upon today as rather crude technical methods, to do remarkable things. He knew his anatomy as few surgeons know it today. I remember on one occasion watching him expose the occipital lobe when an American visitor was present. He picked up a scalpel and said: "I am now going to make an incision avoiding Genari's streak." And the visitor whispered to me: "Avoid Genari's streak? Gosh! I never even heard of it." And I suspect that there were others in the room at the time who had not heard of it either, but were not as frank in saying so.

Another example of the way in which his experimental experience helped him in his clinical work was in regard to cerebellar tumors. There is a symptom in patients who suffer from cerebellar tumors that has puzzled clinicians—and still does—namely, the so-called attitude of the head—the patient keeps the head inclined to one shoulder. A variety of explanations has been given for this symptom, but Horsley went into the laboratory to find out. He thought it might have something to do with the fiber tracts running from the medulla up into the cerebellar hemisphere through the superior peduncle. So he took a monkey and cut one cerebellar peduncle. When the animal came out of the anesthetic, it held its head to one side just as does a patient with a cerebellar tumor. And then, as further evidence that his explanation was correct, he reoperated the monkey, cut the other peduncle, and thus re-established the balance with the result that the animal held its head in the upright position.

Research, however, does not necessarily have to be carried on in a laboratory. Careful study of patients may yield just as valuable information, and there are certain problems that can be cleared up only by clinical investigation. For example, the types of visual disturbance arising from the temporal and occipital lobes which have made it possible to differentiate lesions of these lobes could not be worked out except on patients. As a result of these studies, we know today that a patient with an irritative lesion of the temporal lobe may have hallucinations of form, while an occipital lesion will produce hallucinations of color. These temporal and occipital lobe hallucinations were first observed by Hughlings Jackson, who called those arising from the temporal lobe "dreamy states" because the patient, in addition to having these peculiar visual disturbances of form, often is in a daze, and does not recognize his surroundings or his relation to them. At times, these temporal lobe hallucinations take on a most elaborate form. Some years ago, I saw a school teacher who had attacks arising from irritation of the temporal lobe. She was teaching in a country school, and these attacks would come on when she walked to school with her sister. As she was perfectly conscious when they occurred, she was able to describe them accurately to her sister. They always took the form of an Elizabethan pageant and were so vivid that she could describe even the costumes which the various people wore in great detail.

The hallucinations arising from occipital lobe irritation, on the other hand, are color scotomata—flashes of light and various colors appearing in the affected field of vision. Thus, a patient with a right-sided occipital lobe lesion would see his hallucinations on the left side. So just from the description of hallucinations, plus a homonymous field defect, one may localize a lesion in the temporal or occipital lobe.

Still another example of the way in which laboratory studies may help to explain clinical phenomena is the following:

A good many years ago, some work was done on the connections between the cortical centers and the thalamus, and it was found at that time that there were fibers running from the face center to the thalamus, but none from the arm or leg centers to the thalamus. Obviously these must serve a special function. Years later, in reviewing a series of frontal lobe lesions, it was noted that the most frequent early symptom of a frontal lobe lesion was a facial paresis which was particularly noticeable during an

emotional upset. Since the thalamus controls emotions, it seemed obvious that the fiber tract described was concerned in this phenomenon.

The third essential quality of a great surgeon is honesty. Of course, I do not mean honesty in the ordinary sense. Naturally, that is required in any walk of life and in any occupation. But a medical man, particularly a surgeon, has to exercise rigid intellectual honesty even if it necessitates acknowledging mistakes, sometimes grievous ones. When men become greatly interested in some subject, it is particularly important for them to exert the most exacting self-criticism, for their enthusiasm may so carry them away that they may delude themselves as well as others, and make exaggerated statements. Some years ago, a new treatment for trigeminal neuralgia was announced—vitamin B. It was claimed that it relieved the pain. Unfortunately, the first intimation of this new treatment came through *Time Magazine*, which is hardly a recognized source of medical information, and the mere fact that the announcement of this new form of treatment first appeared there made many of us wonder about its validity. But wishing to be fair to the man who first advocated this form of treatment, most of us reserved judgment until he published something about his work in one of the recognized medical journals. In the course of his article, when it finally appeared, he made this statement: "Textbook descriptions of tic douloureux give the impression that the pain of major neuralgia is terribly severe. From our experience, this is an exaggerated picture. The pain may be troublesome." This one statement that the pain of trigeminal neuralgia is not severe was enough to make one question the accuracy and honesty of this man's observations. For there is no disease that I know of which is characterized by more intense pain than major trigeminal neuralgia, and anyone who does not realize that fact either never has seen a major trigeminal neuralgia or is deluding himself. When patients are willing to go for days without a drop of water and come into the hospital dehydrated because the mere swallowing of a little water brings on violent pain, when a woman, who is otherwise neat in her appearance and fastidious about her person, permits dirt to cake on one side of her face because the mere attempt to wash it brings on terrific pain, when a man has one side of his face unshaven because the touch of a razor blade brings on unbearable pain, or lastly, when a patient permits the entire half of her face to be burned in dozens and dozens of places with an actual cautery in the hope that it may counteract the pain, there can be no question that patients suffering from major trigeminal neuralgia really have more than "troublesome" pain. I have tried vitamin B a number of times in cases of trigeminal neuralgia, but I have never found it of much value. A few patients seem to have been temporarily relieved, but as a useful form of treatment I feel that it may be disregarded. I do not believe that the man who reported this treatment meant to be dishonest; he merely did not exercise critical judgment and deluded himself.

An example of a man who did not delude himself, which I witnessed a good many years ago, is, I think, worthy of recording. In 1907 and 1908 surgery of the pituitary gland had not yet been developed. Harvey Cushing had not yet begun the work which ultimately resulted in his famous monograph on the pituitary gland which appeared in 1912. Cases of pituitary disease were being recognized, but, as far as I know, no one had attempted any surgery except Victor Horsley. One day when I was making rounds with him at the National Hospital in London, he was asked to see a case of pituitary tumor. The patient was in an advanced stage of the disease and was losing his eyesight. Horsley announced that he would operate on him. His colleague, Charles Beevor, remonstrated with him and said: "But you know, if you operate on this patient, he will surely die." To which Horsley replied: "Yes, perhaps he will, but if someone does not undertake this operation, men who come after will never learn how to operate on the pituitary gland." This episode made a profound im-

pression on me, for it illustrates in a striking way both the absolute honesty of the man and incidentally the attitude of the pioneer in surgery.

It requires an inordinate amount of courage for a conscientious, honest surgeon to continue to work in a field in which the results are attended by a high mortality. But that has been the experience in many fields of surgery when they were first undertaken. There is a famous letter that Billroth, eminent Vienna surgeon of the middle of the last century, wrote to his assistant, Von Eiselsberg, in which he bemoaned the high mortality attending ovariotomy. He lost something like twenty per cent of his cases. Yet today ovariotomy is one of the simplest and safest abdominal operations with practically no mortality whatever. The story of trigeminal neuralgia is a very similar one. When removal of the gasserian ganglion was first advocated for treatment of trigeminal neuralgia, surgeons hesitated to undertake the operation because of the terrific mortality attending the procedure, yet today in every neurosurgical clinic the operation for trigeminal neuralgia has practically no mortality, certainly considerably less than one per cent; and surgery of the pituitary has undergone a comparable change. Today pituitary operations are successfully performed in every neurosurgical clinic, though they have not yet reached the stage where they have as low a mortality as trigeminal neuralgia.

There is another form of intellectual honesty which a surgeon must learn to exercise rigidly—namely, to take the blame for a bad result on his own shoulders. I remember vividly, when I was an intern, working with a surgeon whose skill was beyond all question. His besetting sin was that when something went wrong, he always blamed something or somebody else, with the result that, although we all recognized his technical ability, there was not a man on the staff who did not despise him for this characteristic, which I am certain was responsible for his never having received the recognition which his technical ability deserved. He was a small man.

And now we come to the last and most valuable asset in the surgeon—that almost indefinable thing known as surgical judgment, a quality that some men acquire early in their careers and some men never seem fully to acquire. It is not a thing that men can be taught, but the observation of others who exercise good surgical judgment will help many men to develop it. Hardly a day passes but the surgeon is called upon to exercise his judgment, and what makes it particularly interesting and often thrilling is that he often is called upon to exercise it at a moment's notice. Countless examples could be given of what is meant by surgical judgment. One of the greatest surgical masters was Harvey Cushing; his judgment was almost uncanny, and the following episode illustrates it strikingly. In 1918 Doctor Cushing with a few others decided that neurological surgery had reached the stage when an organization ought to be formed composed of men devoting themselves exclusively to this specialty. The first meeting of this new organization was held at his clinic in 1919. The small group called together for this occasion came from all over the country. It was planned that part of the time should be devoted to the observing of operations, and the rest of the two-day meeting to presentation of work that was being carried on in his clinic. I cannot begin to describe to you the eagerness and enthusiasm with which this group of men met, and everybody was there bright and early to see Doctor Cushing operate on a patient with a brain tumor. At that time, the anesthetic in common use was percentage ether with the Connel machine, since it usually gave a smoother anesthetic. The patient was brought into the operating room and was obviously taking the anesthetic badly. He was blue and coughing, and in spite of everything that the anesthetist and Doctor Cushing could do, they were unable to quiet him. Finally, Doctor Cushing turned to the group of visitors and said: "I am not going to operate on this man today. He takes his anesthetic badly, and if we were to try to carry on the operation, we would certainly get into trouble." It was a hard decision to make. Here was this entire

group keyed up to see what Doctor Cushing would do. It was the first session of the Society of Neurological Surgeons, but most of us felt that this was a superb example of surgical judgment, for we all realized that to have tried to carry through the operation on this patient might have resulted in a catastrophe. Our disappointment was great, but the display of such forbearance and judgment really was an admirable way to start this new organization.

The exercising of surgical judgment is dependent upon a variety of factors. What may seem poor judgment for one surgeon, in the hands of another, may prove to be good judgment. A surgeon's experience and technical skill are factors that must be taken into consideration.

There is a certain type of brain tumor that occurs particularly in children known as a medulloblastoma. It occurs almost exclusively in the posterior fossa, and most frequently in the mid-line in the vermis over the fourth ventricle. This tumor is the one brain tumor that is particularly radiosensitive, and how best to deal with these tumors constitutes one of the favorite arguments among neurosurgeons. One group feels that, since this type of tumor is likely to recur, it is best to be conservative and not attempt to remove it while the other group, to which I belong, takes the attitude that the only way to cure a patient of a brain tumor is to take it out. I have come to this conclusion after reviewing our whole series of medulloblastomas. Comparing our results with the results in those clinics where they merely do a biopsy, I find that, although we do a much more extensive operation, our results are as good, if not slightly better. Furthermore, we have had a few cases of medulloblastoma who are living now, more than five years after removal of the tumor, so that we feel justified in continuing this line of treatment with this type of tumor. It does not follow, however, that the other group of surgeons is wrong. Their judgment leads them to deal with these cases in one way, and ours, in another. There are others who feel that since most mid-line cerebellar tumors in children are medulloblastomas, these patients should first be treated with X-ray therapy before they are even subjected to operation, but that is a view that I cannot subscribe to. Some years ago I saw a little girl who had the typical picture of a cerebellar tumor—marked nystagmus, staggering gait, and a terrific double choked disc with eyesight that was already seriously impaired. The history showed that she had been taken to another clinic where they believed in giving the patient X-ray therapy first. Following a course of X-ray therapy which lasted for a month, the child showed some improvement. Consequently, when her symptoms began to recur, a second course of therapy was advised. While this was being carried on, she became much worse and was brought to us in the state I have just described. The feeling in my clinic has been that it is unwise ever to treat any patient with deep X-ray therapy unless the histology of the tumor is known. We operated upon the child and found a type of tumor known as a cholesteatoma, which is absolutely insensitive to X-ray therapy. Fortunately, the operation was performed in time, the tumor was completely removed, and the child's eyesight was saved.

Still another example that involves surgical judgment is the problem of the treatment of the malignant types of glioma, the so-called spongioblastoma multiforme. There are very few cases on record of patients with this type of tumor who have been permanently cured, and for that reason some neurosurgeons believe today that these patients should not be operated upon; some even go so far as to content themselves with a needle biopsy, and if this biopsy proves conclusively that the patient has this type of glioma, they advocate doing nothing. Personally, I cannot agree with this point of view, for I believe that one of the functions of a physician and surgeon is to relieve a patient even if he cannot effect a cure. To give a sick person a period of relief, even though it may last only a year, is worth while. In my experience, families of patients with this form of glioma have been grateful to have a patient spared for that length of time. Doing a palliative operation on a spongioblastoma is com-

parable to doing a gastroenterostomy for a patient with carcinoma of the stomach who has a complete obstruction.

No discussion of surgeons would be complete without some mention of Doctor Halsted, because he personified the great surgeon as no other man in this country ever did. He possessed to an extraordinary degree all the qualities I have mentioned and in addition had great gentleness and kindness. Doctor Halsted was a diffident man. Not many knew him well. By the merest chance, while a student, I had a glimpse of his kindliness. One day he did an abdominal exploration on a very young man in the public ward who had a wife and several children. He found an inoperable cancer and closed him up. The poor fellow was very low in spirits. Several days after operation I happened to pass his bed when he called me over to show me a beautiful plant at his bedside and a card on which was written: "With kind regards from Dr. William Halsted." The poor fellow beamed as well he might.

On another occasion Doctor Halsted brought an elderly little woman into the clinic who had a cancer of the breast. That was before the days of the activities of the Society for the Prevention of Cancer, and people had not been educated to face the cancer problem. The very word cancer terrified people. When Doctor Halsted had finished demonstrating the patient, she turned to him and said: "Doctor Halsted, have I a tumor or a cancer?" He looked at her for a few moments very intently and said: "Madam, you have a tumor." He dismissed the patient, and turning to the class said: "A cancer is a tumor, and this old lady did not want to hear that she had a cancer."

These glimpses indicate the humanitarian side of that great man, and though not essential qualities certainly tend to make the great even greater.

There are other characteristics that one likes to see in a great surgeon, and some of these add luster to his name and fame, but the qualities I have outlined tonight are those without which no surgeon can rightly be called great.

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in four categories as follows: first, those who have been commissioned and are on duty; second, those who have been commissioned and are awaiting orders; third, those who have applied for a commission and are awaiting action by the proper authorities; fourth, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Chester	Hunter M. Steadman	Henderson
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Newton A. Cannon	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James W. Harrison	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville
Davidson	Jas. A. Loveless	Nashville
Davidson	J. P. Lowe	Nashville
Davidson	Sol Lowenstein	Nashville

*Deceased.

Davidson—Jas. R. McMillan—Nashville
Davidson—Robt. H. Magruder—Nashville
Davidson—C. G. deGutierrez-Mahoney—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Hugh Amos—Old Hickory
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—James O. Barker—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Greene—John G. Zirkle—Greeneville
Hamblen—Robert A. Purvis—Morristown
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—Carl A. Hartung—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Milton C. Semoff—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar
Hardeman—Wiley D. Lewis—Bolivar
Hardeman—M. J. Stewart—Whiteville
Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville
Hawkins—A. S. Yates—Rogersville

Haywood—Robert C. Berson—Brownsville
Henderson—R. M. Conger—Lexington
Henry—J. W. Didcoct—Paris
Henry—Arthur C. Dunlap—Paris
Henry—J. C. McKissick—Paris
Henry—Geo. H. McSwain—Paris
Hickman—Wm. L. Phillips—Centerville
Jefferson—William B. Malcolm—Dandridge
Jefferson—Frank L. Milligan—Jefferson City
Knox—A. J. Weber—Bearden
Knox—Malcolm F. Cobb—Concord
Knox—B. B. Mitchell—Fountain City
Knox—Charles M. Armstrong—Knoxville
Knox—Spencer Y. Bell—Knoxville
Knox—R. G. Brashear—Knoxville
Knox—A. M. Carr—Knoxville
Knox—E. E. Carrier—Knoxville
Knox—Jack Chesney—Knoxville
Knox—L. W. Chesney—Knoxville
Knox—H. S. Christian—Knoxville
Knox—H. E. Christenberry, Jr.—Knoxville
Knox—Sam M. Cooper—Knoxville
Knox—T. P. Day—Knoxville
Knox—W. A. DeSautelle—Knoxville
Knox—T. B. Drinnen—Knoxville
Knox—Richard N. Duffey—Knoxville
Knox—J. Gilbert Eblen—Knoxville
Knox—Jas. B. Ely—Knoxville
Knox—Frank Faulkner—Knoxville
Knox—Glenn D. Grubb—Knoxville
Knox—Geo. G. Henson—Knoxville
Knox—Oliver W. Hill, Jr.—Knoxville
Knox—C. R. Huffman—Knoxville
Knox—C. E. Irwin—Knoxville
Knox—Willard J. Irwin—Knoxville
Knox—H. H. Jenkins—Knoxville
Knox—J. O. Kennedy—Knoxville
Knox—A. H. Lancaster—Knoxville
Knox—R. P. Layman—Knoxville
Knox—J. H. Lesher—Knoxville
Knox—J. D. McCullough—Knoxville
Knox—Wm. T. McPeake—Knoxville
Knox—J. L. Montgomery—Knoxville
Knox—Wm. S. Muse—Knoxville
Knox—E. P. Nicely—Knoxville
Knox—Frank O. Nichols—Knoxville
Knox—Ralph Nichols—Knoxville
Knox—B. M. Overholt—Knoxville
Knox—Jos. B. Parker, Jr.—Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr.—Knoxville
Knox—Herschel Penn—Knoxville
Knox—Jarrell Penn—Knoxville
Knox—H. L. Pope—Knoxville
Knox—John S. Powers, Jr.—Knoxville
Knox—John A. Range—Knoxville
Knox—Jos. L. Raulston, Jr.—Knoxville
Knox—Hugh C. Reaves—Knoxville
Knox—J. S. Ruffin, Jr.—Knoxville
Knox—J. H. Saffold—Knoxville
Knox—A. B. Shipley—Knoxville
Knox—P. D. Smith—Knoxville
Knox—J. M. Stockman—Knoxville
Knox—Geo. W. Tharp—Knoxville
Knox—Phil Thomas—Knoxville
Knox—Fred West—Knoxville
Knox—Leon J. Willien—Knoxville
Lake—W. T. Rainey—Tiptonville
Lauderdale—J. H. Nunn—Ripley
Lauderdale—W. Val Sanford—Ripley
Lawrence—L. C. Harris, Jr.—Lawrenceburg
Lincoln—R. E. McCown—Fayetteville
Lincoln—Ben H. Marshall—Fayetteville
Lincoln—M. C. Woodfin—Fayetteville
Lincoln—E. S. Leek—Petersburg
Loudon—F. E. Hufstedler—Lenoir City
Loudon—Avery Leeper—Lenoir City
McMinn—S. B. McClary, Jr.—Etowah
McMinn—A. W. Reeser—Athens
McMinn—Lester H. Shields—Athens
McNairy—T. N. Humphrey—Selmer
McNairy—H. O. Mason—Adamsville
Madison—L. D. Farragut—Bemis
Madison—Roderick C. Webb—Bemis
Madison—Everett Archer—Jackson
Madison—C. H. Brown—Jackson
Madison—W. B. Camp—Jackson
Madison—J. E. Douglass—Jackson
Madison—R. S. Hellmann—Jackson
Madison—Frank A. Moore—Jackson
Madison—Roy M. Neudecker—Jackson
Madison—Carl Rogers—Jackson
Madison—A. R. Taylor—Jackson
Madison—J. R. Thompson, Jr.—Jackson
Madison—P. E. Wylie—Jackson
Madison—Stevens Byars—Mercer
Marshall—A. L. Cooper—Chapel Hill
Marshall—H. B. Disharoon—Lewisburg
Maury—W. N. Cook—Columbia
Maury—Robin Lyles—Columbia
Maury—J. B. Miller—Columbia
Monroe—D. F. Heuer, Jr.—Sweetwater
Monroe—R. M. Price—Sweetwater
Montgomery—J. A. Culbertson—Clarksville
Montgomery—John H. Ledbetter, Jr.—Clarksville
Montgomery—Phillip Lyley—Clarksville
Morgan—R. A. Steadman—Wartburg
Obion—Hal E. Bennett—Troy
Obion—Edward W. Barksdull—Union City
Obion—R. M. Darnall—Union City
Obion—R. G. Latimer, Jr.—Union City
Overton—H. B. Nevans—Livingston
Pickett—Floyd B. Hay—Byrdstown
Polk—Henry S. Harris—Benton
Polk—J. H. Lillard—Benton
Polk—H. H. Hyatt—Copperhill
Putnam—H. H. Taylor—Cookeville
Putnam—R. L. Akin—Monterey
Roane—L. A. Killeffer—Harriman
Roane—G. D. Schuessler—Oliver Springs
Roane—F. Davis Owings—Rockwood
Robertson—J. C. Lunderman—Orlinda
Robertson—W. P. Stone—Springfield
Rutherford—Harvey W. Carter—Murfreesboro
Rutherford—Thos. G. Gordon—Murfreesboro
Sevier—John A. Conroy—Newton, Mass.
Sevier—Charles E. Pack, Jr.—Sevierville
Sevier—R. M. Perry—Sevierville
Shelby—J. H. Adler—Memphis
Shelby—R. Roger Anderson—Memphis
Shelby—Chas. G. Andrews—Memphis

Shelby—J. M. Aste—Memphis
Shelby—Edward R. Atkinson—Memphis
Shelby—Chas H. Avent—Memphis
Shelby—J. C. Ayers—Memphis
Shelby—James M. Bethea—Memphis
Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—R. F. Bonner—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—James M. Brockman—Memphis
Shelby—W. T. Braun—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—John Kerr Crawford—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—W. F. Dobyns—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Harold Feinstein—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—Paul Hill Goodman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—R. A. Hennessey—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—James E. Holmes—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Wm. E. Hurt—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingraham—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Richard King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Wm. M. Lovejoy—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Geo. E. Paullus, Jr.—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—G. S. Plog—Memphis
Shelby—Ira F. Porter—Memphis
Shelby—Hugh R. Raines—Memphis
Shelby—S. L. Raines—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Chas. G. Robinson—Memphis
Shelby—Wm. A. Runkle—Memphis
Shelby—P. B. Russell, Jr.—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—Bryant S. Swindoll—Memphis

Shelby—B. S. Taley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis
Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—Jack Viscofsky—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis
Shelby—J. E. Watson, Jr.—Memphis
Shelby—Julian K. Welch, Jr.—Memphis
Shelby—S. I. Wener—Memphis
Shelby—Horace G. Williams—Memphis
Shelby—W. L. Wilhelm—Memphis
Shelby—Harwell Wilson—Memphis
Shelby—John M. Wilson—Memphis
Shelby—J. E. Wilson—Memphis
Shelby—C. Frank Yates—Memphis
Sullivan—J. W. Erwin—Blountville
Sullivan—Tom Kuhnert—Bristol
Sullivan—John Marcy—Bristol
Sullivan—G. W. McCall—Bristol
Sullivan—B. W. Mongle—Bristol
Sullivan—L. B. Snapp, II—Bristol
Sullivan—F. L. Alloway—Kingsport
Sullivan—R. W. Asthalter—Kingsport
Sullivan—H. O. Bolling—Kingsport
Sullivan—R. H. Brown—Kingsport
Sullivan—H. S. Burem—Kingsport
Sullivan—W. C. Carreras—Kingsport
Sullivan—P. W. Cox—Kingsport
Sullivan—John B. Hamilton—Kingsport
Sullivan—R. B. Howard—Kingsport
Sullivan—K. R. Kiesau—Kingsport
Sullivan—M. D. Massengill, Jr.—Kingsport
Sullivan—J. F. Morton—Kingsport
Sullivan—R. G. Nichols—Kingsport
Sullivan—W. B. Payne—Kingsport
Sullivan—Raymond A. Steadman—Kingsport
Sumner—P. M. Huggins—Gallatin
Sumner—Benjamin A. Warren—Gallatin
Tipton—N. L. Hyatt—Covington
Tipton—J. S. Ruffin, Jr.—Covington
Tipton—O. J. Swisher—Covington
Unicoi—R. H. Harvey—Erwin
Unicoi—W. C. Humbert—Erwin
Unicoi—H. L. Monroe—Erwin
Union—Norman H. Rucker—Luttrell
Washington—C. M. Creech—Johnson City
Washington—H. B. Fuqua—Johnson City
Washington—C. S. Gresham—Johnson City
Washington—W. D. Hankins—Johnson City
Washington—Harry Myron, Jr.—Johnson City
Washington—W. L. Poole—Johnson City
Washington—W. G. Preas—Johnson City
Washington—Hugh F. Swingle—Johnson City
Washington—Charles P. Wofford—Johnson City
Washington—H. B. Cupp—Mountain Home
Washington—John Busey—Mountain Home
Washington—Ernest Marcus—Mountain Home
Weakley—Paul W. Wilson—Dresden
Weakley—Madison H. Buckley—Martin
Williamson—W. F. Roth, Jr.—Franklin
Wilson—O. R. Hill—Lebanon
Wilson—James McFarland, Jr.—Lebanon
Wilson—W. K. Tilley—Lebanon

DOCTORS WHO HAVE RECEIVED COMMISSIONS AND AWAITING ORDERS TO ACTIVE DUTY

County	*Name*	*Address*
Davidson	Nathan P. Horner	Nashville
Hamilton	Walter Buckner, II	Chattanooga
Hamilton	Eugene F. McCall	Chattanooga
Knox	R. H. Butler	Knoxville
Knox	Sam P. Davidson	Knoxville
Knox	Peter J. Flippin	Knoxville
Knox	D. T. Hoey	Knoxville
Knox	L. C. Ogle	Knoxville
Knox	J. W. Riggs	Knoxville
Knox	Jacob M. Williams	Knoxville
Shelby	Joseph D. Cleveland	Memphis
Shelby	Harry Z. Landis	Memphis
Shelby	Robert E. Lawson	Memphis

DOCTORS WHO HAVE APPLIED AND WHOSE COMMISSIONS ARE PENDING

Anderson—J. L. Sergeant—Lake City
Campbell—C. E. Ausmus—Jellico
Davidson—S. W. Ballard—Nashville
Davidson—Theodore W. Davis—Nashville
Davidson—T. Emerson Simpkins—Nashville
Hamblen—Chas. S. Crook—Morristown
Knox—E. M. Eddington—Knoxville
Knox—Wiley R. Smith—Knoxville
Knox—John Szewczyk—Knoxville
Lincoln—James V. McRady—Fayetteville
Shelby—M. W. Adams—Memphis
Shelby—L. L. Carter—Memphis
Shelby—Clyde V. Croswell—Memphis

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff—Clinton
Cannon—Carl E. Adams—Woodbury
Anderson—A. J. Butler—Clinton
Carter—John L. Chesnut—Elizabethton
Carter—E. T. Pearson—Elizabethton
Coffee—Wm. M. Minnis—Manchester
Davidson—E. E. Anderson—Donelson
Davidson—R. Z. Linney—Madison
Davidson—Joe E. Sutherland—Madison College
Davidson—J. J. Ashby—Nashville
Davidson—Edward H. Barksdale—Nashville
Davidson—Lynch D. Bennett—Nashville
Davidson—Randolph A. Cate—Nashville
Davidson—David W. Hailey—Nashville
Davidson—Andrew N. Hollabaugh—Nashville
Davidson—Thos. M. Jordan—Nashville
Davidson—J. K. Kaufman—Nashville
Davidson—Carl Kirchmaier—Nashville
Davidson—N. B. Morris—Nashville
Davidson—James C. Overall—Nashville
Davidson—James N. Owens—Nashville
Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville

Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Herman Spitz—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville
Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Chas. W. Davis—Humboldt
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—Rae B. Gibson—Greeneville
Hamblen—M. J. Bellaire—Morristown
Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—John Moore—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Morgan—Wm. E. Gallion—Oakdale
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Sevier—J. Myron Mittleman—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—H. E. Atherton—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—James T. Bridges—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Charles K. Lewis—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Roland H. Myers—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Donald W. Oelker—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Leo F. Pierotti—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—R. O. Rychener—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Shelby—John E. Whiteleather—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Washington—G. V. Stanton—Limestone
Wayne—Dexter L. Woods—Waynesboro
Weakley—R. W. Brandon, Jr.—Greenfield
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin



O. N. Bryan, M.D.
President, Tennessee State Medical Association

O. N. Bryan, M.D.

Dr. Oval Nelson Bryan was born on a farm near Watertown, Wilson County, Tennessee, July 4, 1881, to the late Joshua L. Bryan and Jennie Wood Bryan.

His early life was that of a normal country boy in a wholesome home environment. His education was obtained in the public schools available in that vicinity. He started out at an early age to become a businessman. He entered Falls Business College, from which institution he graduated in 1903 and immediately obtained a position with the Nashville Terminals Company which position he held until he entered upon the study of medicine. He graduated from Vanderbilt University Medical School in 1907.

After graduation he immediately became surgical assistant to his older brother, the late Dr. W. A. Bryan, of Nashville, who, at the time, was associate professor of surgery at Vanderbilt University. He remained his brother's surgical assistant for a period of eight years. But Dr. O. N.'s leanings were toward internal medicine. He became a demonstrator of anatomy and assistant to the Chair of Medicine in his Alma Mater under the late Dr. John A. Witherspoon. He later taught physical diagnosis in Vanderbilt Medical School and in Vanderbilt Dental School. At the present time he is assistant professor of clinical medicine at Vanderbilt University Medical School.

He entered the medical corps of the United States Army with the rank of captain during World War I and was on active duty for a period of eleven months at Camp Pike, Arkansas, and Camp Sherman, Ohio.

He has been a student of medicine all through the years. He was the first man in Nashville to recognize and report the presence of tularemia in this region. He probably was the first to recognize the presence of Vincent's angina in this region long before World War I. He has made many scientific contributions to medical literature.

He became identified with organized medicine as soon as he was eligible to do so. He has performed with energy and fidelity all the duties that have been imposed upon him. He has served as president of the Nashville Academy of Medicine and the Davidson County Medical Society and as president of the Middle Tennessee Medical Association. He has also served as a member of the County Board of Health of Davidson County for a long period of years. He is a member of his local and state society, fellow of the American Medical Association, and a fellow of the American College of Physicians.

He is a Master Mason, a Scottish Rite Mason, a Shriner, and a member of the Royal Order of Jesters.

In 1913 he was married to Miss Vance Bogle. They have three children, two daughters, Martha and Jane, and one son, O. N. Bryan, Jr.

His outstanding ability and sterling worth are attested to by the fact that he enjoys the confidence and admiration of not only his fellows in the medical profession, but a host of friends, admirers, and patients. It can be safely predicted that his leadership in his new position as president of the Tennessee State Medical Association will be characterized by energy, self-sacrifice, and unswerving loyalty to all the principles we hold dear.

THE JOURNAL

OF THE

TENNESSEE STATE MEDICAL ASSOCIATION

Devoted to the Interests of the Medical Profession of Tennessee

Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

MAY, 1943

EDITORIAL

The Recent Session of the House of Delegates of the Tennessee State Medical Association

The April issue of the JOURNAL was in the press at the time the session of the House of Delegates of the Tennessee State Medical Association was held at the Noel Hotel, Nashville, April 11, 1943. Opportunity, therefore, was not afforded for comment in that issue on actions taken.

The impression is widespread that it was an important session of the House and that very important actions were taken.

The reports of officers indicate that the Association is in sound condition.

It is made clear that our profession has contributed to the war effort far in excess of the average for the nation as a whole. It is made clear, also, that this tremendous accomplishment has been brought about with the least possible impairment to civilian services.

The most important single new item of business concerns the creation of a *committee on medical and hospital service plans.* The committee was appointed promptly by the Board of Trustees and consists of the following:

Middle Tennessee:
Dr. J. O. Manier, Chairman, Nashville.
Dr. Robert R. Brown, Nashville.
East Tennessee:
Dr. J. C. Brooks, Chattanooga.
Dr. M. S. Roberts, Knoxville.
West Tennessee:
Dr. A. R. Porter, Jr., Memphis.
Dr. W. D. Stinson, Memphis.

It is the function of the committee to make a study of medical and hospital service plans now in operation, especially those plans which operate on a state-wide basis, and report their findings and recommendations as early as possible.

It is possible now to state that the committee has already begun this study.

From time to time editorial opinion has been expressed in the JOURNAL to the effect that experience would supply the only answer to many questions concerning the operation of so-called medical and hospital service plans.

Insurance companies in the United States finally established themselves on a sound basis by the process of trial and error. They accumulated actuarial and other experiences on which to base sound policies. Sound policies made their success. It is for this same reason that a study of the medical service plans now in operation in several states and cities is very important. It does not mean that the adoption of a medical service plan in Tennessee is in the immediate offing. It does mean that the medical profession in Tennessee is alert to the problems of the present and the immediate future, and that any action taken on the question will be based upon sound conclusions arrived at from a thorough study of the question.

RESOLUTIONS

A Tribute to Dr. J. Pilmoor Gilbert

T. FORT BRIDGES, M.D.

The death of Dr. J. Pilmoor Gilbert on September 3, 1942, came as a distinct shock to the medical profession of this community. He was my friend, a fact that intensifies that feeling of loss and renders more diffi-

cult any effort to evaluate his real worth to our profession and community.

Doctor Gilbert was born in Nashville, Tennessee, May 8, 1894, and lived in this city nearly all of his life. He graduated from Fogg High School, and after working two years entered Vanderbilt University as a premedical student. His studies were interrupted by World War I and he promptly volunteered in the Medical Corps of the United States Army. He saw service in France, where he served as sergeant in a field hospital in the Eighty-First Division. Returning to the United States after the armistice, he resumed his studies at Vanderbilt University Medical School, graduating in 1923.

Following his graduation and specialized training in psychiatry, he entered private practice in his native city, where he was actively engaged until a few weeks prior to his death. He was a member of the American Medical Association, the American Psychiatric Association, the Tennessee State Medical Association, and the Nashville Academy of Medicine. He served as secretary-treasurer of the Nashville Academy of Medicine for four years, and was vice-president of this society. He was also an active member of the staffs of the various hospitals of the city, and was consultant psychiatrist for the Central State Hospital. He was a member of the McKendree Methodist Church, of the American Legion, and a Mason.

He was an instructor in anatomy during his sophomore year at Vanderbilt University, and it was at this time I first knew "Pety," as he was affectionately called by his fellow students, and here we came to appreciate those lovable qualities that endeared him to all who knew him well. He was honest in his thinking and conscientious in his endeavor to help others. His friendliness, together with a fine sense of humor, seemed to draw people to him. A colleague remarked to me at the time of his death: "Pety was the most lovable character I have ever known."

Dr. Gilbert was in every sense of the word a Christian gentleman. He practiced the Golden Rule in his daily life, and never spared himself in his effort to serve those who came under his care. I think in the passing of Doctor Gilbert our profession has lost a valuable and sympathetic colleague, the community a humanitarian, and his family a devoted husband and father.

A Tribute to Dr. Edwin A. Sayers

OSCAR G. NELSON, M.D.

Dr. Edwin A. Sayers was born at Franklin, Tennessee, September 25, 1886, the son of John Hamilton and Addie Belle Nolen Sayers. He was educated at Battle Ground Academy in Franklin and at Peabody College. He graduated in medicine at the old University of Nashville and later did postgraduate work at Johns Hopkins University.

During the first World War he was commissioned a first lieutenant in the Marine Corps Reserve, but was not called to active duty.

He married the former Mary Lee Hanley of Nashville. He is survived by her and their two sons, Joseph Hanley and Edwin A., Jr.

He was a member of the Nashville Academy of Medicine, the Southern Medical Society, and the American Association for the Surgery of Trauma, of which he was a charter member.

When he opened an office in Nashville, he saw almost immediately that an opportunity existed for the development of the specialty of traumatic surgery. He never wavered from his choice of this branch of the medical profession. With his increasing success he drove himself without regard to his health, rising early to make rounds in the hospital and generally arriving at his office when most doctors were still draining the last drop of sleep from the cup of Morpheus. Later, when increasing cares of work and age began to make inroads on his health, he refused to slow down, rather preferring to wear out than to rust out. He was unhappy unless working at full speed. He continued to get to his office at eight o'clock and seldom left before six.

His ambition to die while still working at the zenith of his strength was finally realized. He had a stroke of apoplexy while

driving home from his office on the eleventh day of April, 1942. This resulted in his death on April 24, 1942.

Doctor Sayers was of pleasing personality. With diligence and perseverance he stuck manfully to his ideals of professional attainment. His joy in life was his chosen line of surgery. Surgery was his hobby and his recreation. It may almost be true to say that he worshiped at the temple of Aesculapius. A host of patients continue to attest their appreciation of him as a friend—their indebtedness to his professional skill as a surgeon and their admiration for one who laid down his own life in sacrificial service to his fellow men.

A Tribute to Dr. Horton Ryan Casparis

W. S. LEATHERS, M.D.

The untimely death of Dr. Horton Ryan Casparis, professor of pediatrics in the School of Medicine of Vanderbilt University, on November 12, 1942, was a great shock to his many friends in Nashville and elsewhere. He was at the time in Richmond, Virginia, attending a meeting of the Southern Medical Association.

He was born at Round Mountain, Texas, March 13, 1891. He received the bachelor of arts degree from the University of Texas in 1915 and graduated in medicine at the Johns Hopkins University in 1919. He was serving on the staff of the Department of Pediatrics in Johns Hopkins Medical School and Hospital when he was chosen as a member of the faculty of Vanderbilt University School of Medicine in 1924. Before entering upon his duties at Vanderbilt he spent a number of months visiting various European clinics, and began active service as associate professor of medicine in charge of pediatrics at Vanderbilt in 1925, and he was appointed professor of pediatrics in 1928.

Doctor Casparis was greatly interested in the problems of the medical school and the university. He was an interesting and stimulating lecturer and teacher, and as a counselor he was wise and honest. His opinions were sought by those who knew him and he always expressed frankly his points of view in an unselfish and unprejudiced manner.

Because of his unassuming manner, we who enjoyed his companionship were unaware of the extent of his usefulness in such a large field of service. He was at the time of his death president of the Nashville Public Health Nursing Council, the Tennessee Tuberculosis Association, and the Southern Trudeau Society; director of the National Tuberculosis Association, a member of the American Trudeau Council, and a member of the Committee on Undergraduate Education of the American Trudeau Society. He was on the advisory panel of the National Association of Nursing School Education, a member of the National Maternal and Child Health Council, chairman of the Advisory Committee of the United States Children's Bureau, a member of the Mental Health Committee of the American Academy of Pediatrics, a member of the National Commission for Young Children, and for many years a councilor of the Southern Medical Association. He was also chairman of the State Nutrition Committee, chairman of the Committee on Public Relations of the American Pediatric Society, state chairman of Region II of the American Academy of Pediatrics, and a member of the Education Board of the American Journal of the Diseases of Children. He served during the last few years as chairman of the American Board of Pediatrics.

Doctor Casparis was remarkable in combining his interests in the fields of pediatrics, psychiatry, tuberculosis, and public health education. He exerted continuously a wide influence as shown by the many significant positions to which he was appointed. He possessed a warmth of personality and unusual affability in his various contacts.

Following his death letters were received from friends and members of benevolent foundations; and the spontaneous comments in national and local newspapers, and particularly of leading citizens of Nashville, were most significant of the fine contributions which he had made as a public-spirited citizen and physician. He touched in a very vital way the humanistic aspects of life.

A letter which I received said impressively: "Few men, I am sure, have had a

wider field of interest and greater influence on the development of preventive medicine in connection with pediatrics, tuberculosis, and mental health, and few have had a larger group of friends who held him in affectionate regard. He is irreplaceable, and I know how deeply his loss will affect you and other sincere friends at Vanderbilt."

The State of Tennessee, particularly Nashville, and the entire nation have lost a useful citizen whose beneficent services were invaluable to scores of people. Doctor Casparis possessed in a rather remarkable way two important qualities of a great physician—sincerity of purpose and genuine sympathy for those in need.

As a member of the Nashville Academy of Medicine and the Davidson County Medical Society we shall miss his friendly association, and on behalf of the society I extend our sincere sympathy to his family.

NEWS NOTES AND COMMENTS

Dr. M. C. Wiggins, who spent the winter in Tucson, Arizona, has returned to his home in Paris, Tennessee.

Dr. Glenn T. Scott, formerly of Mercer, Tennessee, is now located at Brownsville.

Below is a list of the Tennessee doctors in private practice who attended the New Orleans Graduate Medical Assembly meeting, March 15-18, 1943:

Wm. Milton Adams, Memphis; Chester D. Allen, Memphis; W. R. Blue, Memphis; T. F. Booth, Pulaski; Lea Callaway, Maryville; Earl R. Campbell, Chattanooga; L. L. Carter, Memphis; H. P. Clemmer, Milan; W. C. Crowder, Maryville; C. R. Crutchfield, Nashville; Will T. Fitts, Jackson; J. Marsh Frere, Chattanooga; B. I. Harrison, Knoxville; R. L. Johnson, Portland; Vincent D. King, Memphis; C. B. Laughlin, Greeneville; F. E. Marsh, Chattanooga; C. R. Mason, Memphis; Carter Moore, Memphis; E. Dunbar Newell, Chattanooga; Jefferson C. Pennington, Nashville; Walter Pyle, Franklin; John Shea (guest speaker), Memphis; John R. Smoot, Knoxville; George E. Spangler, Humboldt; Joe E. Sutherland, Madison; Fred M. Valentine, Newport; O. H. Yarberry, Sevierville.

Announcement is made of unassembled examinations for positions in the West Virginia State Health Department and the West Virginia State Department of Public Assistance. Applications will be accepted continuously, but new registers will be established from applicants who file no later than June 26, 1943.

Positions for which applications are being accepted, and their respective salary ranges, are listed below. Appointments may be made at above the minimum salaries.

Director, Maternal and Child Hygiene	$4,200-$4,800
Assistant Director, Maternal and Child Hygiene	3,840- 4,500
Director, Industrial Hygiene	4,200- 4,800
Director, Vital Statistics	4,200- 4,800
Director, Communicable Diseases	4,200- 4,800
Assistant Director, Communicable Diseases (Tuberculosis)	3,840- 4,500
Assistant Director, Communicable Diseases (Venereal Diseases)	3,840- 4,500
Venereal Disease Consultant	3,840- 4,500
Director, Bureau of Dental Hygiene	3,840- 4,500
Director, County Health Work	4,200- 4,800
Senior Health Officer	3,840- 4,500
Junior Health Officer	3,360- 3,840
Health Officer Trainee	2,400
Assistant Director, Hygienic Laboratory	2,640- 3,240
Senior Bacteriologist	1,800- 2,400
Senior Serologist	1,800- 2,400
Consultant Nurse in Special Fields	2,400- 3,000
Public Health Nursing Supervisor (State)	1,920- 2,400
Public Health Nursing Supervisor (Local)	1,800- 2,040
Chief of Medical Services	4,800- 5,280

Residence in West Virginia has been waived in consideration of applicants for these positions.

For further information, write Robert F. Bingaman, Supervisor, Merit System Council, 212 Atlas Building, Charleston, West Virginia.

Announcement of Physician's Handbook on Rheumatic Fever

"Rheumatic Fever in Children—Its Recognition and Management," a thirty-two-page clinical handbook written for the practicing physician, has just been released by

Metropolitan Life Insurance Company. It assembles under one cover the modern concepts of the disease—its nature, diagnosis and prognosis, and the individual and community problems involved in the care of the patient. A group of distinguished clinicians and the following organizations assisted in its preparation: the American Heart Association, the American Academy of Pediatrics, the Children's Bureau of the United States Department of Labor, and the United States Public Health Service. Other educational material has been developed by the company in connection with its national program to reach the general public and the medical profession with information on this disease.

Single copies of the handbook are being made available to physicians without charge chiefly through the 16,000 field representatives of the Metropolitan Life Insurance Company. Physicians who wish a copy, and who have not secured one by June 1, should write to Dr. George M. Wheatley, Assistant Medical Director, Metropolitan Life Insurance Company, 1 Madison Avenue, New York, New York.

Doctors' Households Urged to Set an Example in Waste Fat Salvage

The importance of saving waste household fats in order to salvage their glycerine content should be apparent to every physician. The doctor's kitchen, like that of every other family in town, can supply at least a tablespoonful of fat a day—from meat drippings, from rendered trimmings or fat skimmed from the soup kettle and no longer good for food. If that much were retrieved in every household and taken to the meat stores which collect the fat for the renderers, the amount saved would exceed the national goal of 200,000,000 pounds for 1943.

Why must we go to this trouble in a land where more than a billion pounds of fat used to be wasted every year down the kitchen drain or into the garbage can? Because glycerine is desperately needed to feed the United Nations' war machine, and because many of America's outside sources of fats and oils have been cut off by the war.

Glycerine is indispensable in the manufacture of munitions, because it is the source of both nitroglycerine and dynamite, the first of which provides the explosives for propellants, and the second the means of military demolition. Tanks, ships, and planes last longer because of paints containing glycerine. It is used as an anti-icing fluid for the propellors of fighter and bomber planes. The shock absorbers of jeeps and half-tracks, the recoil mechanisms of big guns and the firing mechanisms of depth bombs all contain glycerine.

Glycerine has an important place on the medical front, too, in both war and peace. It is one of the best known and widely used medical materials. There is scarcely a branch of therapeutics in which glycerine does not play a part. An average of more than three pounds of glycerine per hospital bed per year is used in our American hospitals. And an analysis of 15,063 prescriptions made prior to the war in a single American city showed that, with the sole exception of water, glycerine was the most-used liquid ingredient.

In military medicine the role of glycerine continues to grow. Even before we entered the war, large quantities of glycerine were shipped by the American Red Cross to England. In the requests made to organized medical groups in the United States for medical supplies, British authorities rated glycerine as equal in importance to surgical instruments.

Practically all the liquid sulfonamides call for glycerine. The war has given increased emphasis also to the long-established value of glycerine itself in burn therapy and surgical treatment as well as for wound dressings. Dressings can be changed with less discomfort to the patient when they are soaked with glycerine.

The War Production Board is urging all Americans everywhere to help save the fat from which this precious liquid is made. The meat dealer from whom you purchase food will be glad to pay the prevailing rate for the kitchen fats your household conserves. The pennies will buy war stamps—

and every pound of waste cooking fats turned in will provide enough glycerine to make a half pound of dynamite or four thirty-seven-millimeter antiaircraft shells, or their equivalents in other badly-needed materials. Doctor, set an example in your community: start *your* household saving waste kitchen fat today!

Whereas, the series of lectures on "Surgical Diagnosis" given by Dr. J. R. Bromwell Branch to the Fayette-Hardeman Counties Medical Society has ended with practically one hundred per cent of the active members being present at seventy-five per cent or more of the lectures—

We found Doctor Branch to be a most congenial fellow, fine scholar, and excellent teacher.

Be it resolved, That the society wishes to express our most sincere thanks to Doctor Branch and to those who made it possible for our society to receive this course that was so ably presented and which otherwise it would have been impossible for us to have during these unusual times.

We trust we may again have this privilege in the future.

W. D. MARTIN, M.D.,
Acting President.
E. L. BAKER, M.D.,
Secretary.

The following abstract, "Recommendations for a Venereal Disease Control Program in Industry," was drawn from the report of the Advisory Committee on the Control of Venereal Diseases in Industry to the United States Public Health Service:

RECOMMENDATIONS FOR A VENEREAL DISEASE CONTROL PROGRAM IN INDUSTRY

Advisory Committee on the Control of Venereal Diseases. Otis L. Anderson, Chairman

In order to assemble current authoritative information and to formulate basic principles applicable to a program of venereal disease control in industry, the Surgeon General has appointed an Advisory Committee to the United States Public Health Service. This committee has outlined the objectives of such a program as:

A. *Medical and Public Health*

1. To find and refer for proper medical management all cases of venereal diseases among workers in industry.

2. To establish equitable policies for the employment of applicants and continuation of services of employees who have venereal diseases.

3. To coordinate the community and industrial venereal disease control programs.

B. *Employee*

1. To improve the physical condition of employees.

2. To reduce the number of workdays lost through illness or injury.

3. To provide job placement.

4. To prolong and increase the earning power of employees.

C. *Employer*

1. To reduce compensation costs.

2. To lessen work interruptions and labor turnover.

3. To enhance production by increasing the efficiency of workers.

4. To minimize personal problems.

In order to assure agreement on all phases of fundamental policy, the committee recommends that certain agencies be consulted in carrying out this program: the state labor department, industrial commission or similar department of state government; the appropriate committee of the state medical society; the association representing employers; the labor organizations; appropriate voluntary health and welfare associations.

Responsibility for the administration of the program should be shared by the industrial hygiene and venereal disease divisions of the State Health Department. The program should not be inaugurated without a complete educational program. The employee should be convinced that adequate treatment protects both his health and his ability to earn a living, and the employer that not all cases of venereal disease are infectious, through an educational program before venereal disease-control measures are introduced.

In order that the control program may be effective, pre-employment examinations should be mandatory for all workers. Lab-

oratory tests for syphilis and gonorrhea should be made a part of the periodic, reemployment, or "return from illness" physical examinations which are the policy of the industry. The interval between examinations should under no circumstances be more than three years.

It is of utmost importance that the results of the medical examination be considered confidential between the worker and the medical staff. Information should be furnished to others only with the consent of the individual concerned or, failing this, on legal advice. The medical staff should make proper recommendations to the management as to the physical fitness of the employee for work. When the usual clinical record is kept in an open file, venereal disease forms should be filed in the medical department for the use of the medical staff only.

There is no reason for denying employment to an applicant or for discharging an employee because an examination has revealed evidence of syphilis or gonorrhea, provided:

1. That the employee agrees to place himself under competent medical management;

2. That, if the disease is in the infectious stage, employment should be delayed or interrupted until such time as a noninfectious state is established through treatment and open lesions are healed;

3. That when syphilis exists in a latent stage, employment should not be delayed nor interrupted;

4. That employment may be deferred or denied when the individual is an industrial hazard;

5. That occupational readjustments of employees be made of individuals developing disabling manifestations;

6. That workers with syphilis in any of its stages be excluded from areas where there is exposure to chemicals which may produce toxic reactions, and those having cardiovascular syphilis or neurosyphilis should not be exposed to physiologic stresses;

7. That workers with gonorrhea should be allowed to work only under special medical observation during the administration of sulfonamide drugs.

The applicant or the employee whose examination reveals evidence of a venereal disease should be called to the industrial physician's office for a conference. He should be instructed as to the nature of the disease which he has in order that he may cooperate intelligently with the requirements of the program. He should be referred to a reputable source for medical attention and be furnished with a letter directed to his physician stating the results of the examination and what is expected of the employee as to regularity of treatment if he is to be employed. The industrial physician should receive a record of treatment at about monthly intervals. The names of individuals who have neglected or refused treatment should be turned over to the health department for appropriate action in bringing them back to treatment.

The plant physician making a tentative diagnosis of communicable syphilis or gonorrhea should without delay acquaint the appropriate health authority with the facts.

The Florence Crittenton Home

The Florence Crittenton Home of Nashville is a charitable, nonsectarian home for the care of unmarried mothers and their babies. The building consists of a dormitory, modern nursery, and well-equipped hospital, where, ordinarily, the girls are delivered. The home is licensed by the state and is a standard grade A institution.

The medical staff of the hospital is composed of Nashville specialists who have been splendid in volunteering their services for the care of the girls and babies. Without the help of these men, as well as that of the dentists and medical technicians, the home could not be maintained.

Although the length of residence of each case is adjusted individually, it is the purpose of the home to care for the girls three months before and six months after delivery. Consequently, the girls are sufficiently stable both physically and mentally to make wise decisions as to the disposition of their babies. Every effort is made to keep the child with the mother permanent-

ly. If, however, it seems more beneficial for the baby to be separated from its mother, it is transferred, by written permission from the mother, to the Tennessee Children's Home, where it may be adopted through the usual procedure. No adoptions are made from Florence Crittenton Home.

If possible, Tennessee girls outside Davidson County are expected to pay a total of $100 toward their expenses in the home, Davidson County girls $85, and out-of-state girls $125. If no money can be obtained, the girls are accepted anyhow. The fee may be paid in installments. An educational program is carried on with the purpose of preparing the girls to support themselves and their babies after they leave the home. Religious services are held at the home each week by local ministers.

The identity of the girls is protected with the utmost secrecy. Their names are known only to the superintendent, not even to the board members.

Since the home is a character-building agency, the girls and babies are not dismissed until their destination is approved. Jobs are provided for many girls, many return with their babies to their homes, some marry. Scholarships are provided for girls who are capable of continuing school, either academic or vocational.

The paid staff of the home consists of a superintendent, dietitian, registered nurse, and a caretaker. The home is managed by a volunteer board of Nashville women.

Florence Crittenton Home is a recipient of the Nashville Community Chest and of individual donations, such as bequests, etc. A similar home is in Chattanooga, Tennessee. Both homes are affiliated with the National Florence Crittenton Mission.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

Lewis James G. Mead, captain, Medical Corps, 305th A. A. F. F. T. D., Uvalde, Texas, to Station Hospital, L. A. F. S., Lubbock, Texas.

E. Miller Robinson, of Nashville, recently promoted to the rank of lieutenant colonel, is located at Harding Field, Baton Rouge, Louisiana, where he has been base surgeon since early this year.

J. E. Wilson, lieutenant, U. S. N. R., Navy Recruiting Station, Nashville, has been transferred to 1209 Sterick Building, Memphis, office of Naval Officer Procurement.

L. A. Killeffer, Harriman, Tennessee, is now at O. N. O. P. Jackson Base, Birmingham, Alabama.

William J. Sheridan, lieutenant colonel, Medical Corps, Chattanooga, Tennessee, is now in North Africa and reports that he is O.K. He requests that the JOURNAL be sent to him. His address is Second Auxiliary, Surgical Group, A. P. O. 521, care Postmaster, New York City.

James M. Brockman, major, Medical Corps, formerly of McCloskey General Hospital, Temple, Texas, is now at 188 South Bellevue Boulevard, Memphis, Tennessee.

John J. Sohm, major, Medical Corps, U. S. A., Memphis, is located in New Orleans, Louisiana, care Port Embarkation, Dauphine and Poland Streets.

Philip C. Thomas, Knoxville, is with Headquarters Company, Sixth Replacement Depot, A. P. O. 3705, care Postmaster, San Francisco, California.

B. T. Otey, first lieutenant, Medical Corps, U. S. A., Memphis, is now overseas; address, 0-1696563, Fifteenth Evacuation Hospital, A. P. O. 302, care Postmaster, New York.

J. Cash King, Memphis, is now lieutenant commander, U. S. N. R., U. S. Naval Air Station, Jacksonville, Florida.

The present address of L. C. Ramsay, captain, Medical Corps, Memphis, is Air Corps Depot, A. P. O. 953, care Postmaster, San Francisco, California.

John D. Hughes, major, Medical Corps, Memphis, is stationed at 225 Station Hospital, Fort Benning, Georgia.

H. Glenn Williams, captain, Medical Corps, U. S. A., Memphis, is now overseas. Address, 0-1696564, Third Aux. Surg. Gp., A. P. O. 647, care Postmaster, New York City.

MEDICAL SOCIETIES

Davidson County:

April 20—Memorial service for the members who have passed away during the past year. A tribute to Dr. Joseph Pilmoor Gilbert was read by Dr. T. Fort Bridges; a tribute to Dr. Horton Casparis was read by Dr. W. S. Leathers; a tribute to Dr. E. A. Sayers was read by Dr. Oscar G. Nelson.

April 27—A special meeting was held. Dr. Percy S. Pelouze, assistant professor of urology of the University of Pennsylvania from 1913 to 1942, was the guest speaker. The subject of Doctor Pelouze's talk was "The Clinical Management and Control of Gonorrhea."

May 4—"Diseases of the Mediterranean Bases," by Dr. Edward L. Turner.

Hamilton County:

April 22—"Reconstruction of Common Bile Duct," by Dr. W. G. Stephenson. Case reports.

April 29—Paper by Dr. C. L. Lassiter. Abstracts.

May 6—"Hernias" (with motion picture), by Dr. Earl R. Campbell. Case reports.

May 13—"Preoperative and Postoperative Care in Relation to Postoperative Complication," by Dr. Russell B. James. Case reports.

Papers scheduled to be read:

May 20—"The Cancer Problem," by Dr. Edward T. Newell.

May 27—Paper by Dr. Wesley A. Barton.

"Differential Diagnosis of Pain in Chest," by Dr. James L. Bibb.

Knox County:

April 13—Dr. P. S. Pelouze, assistant professor of urology at the University of Pennsylvania, addressed the society. Subject, "Clinical Management and Control of Gonorrhea."

Members of the Blount County Medical Society were guests of the Knox County Medical Society.

April 27—A symposium on "Peptic Ulcer," by Drs. C. C. Smeltzer, H. D. Peters, and C. L. Chumley. Dr. R. G. Waterhouse opened the discussion.

A motion picture, "Otitia Media in Pediatrics," was shown.

Dr. M. S. Roberts gave a five-minute report on the meeting of the House of Delegates of the Tennessee State Medical Association.

OTHER MEDICAL SOCIETIES

The Ninety-Seventh Semiannual Meeting of the Middle Tennessee Medical Association will be held at Dickson, Tennessee, on Thursday, May 20, 1943.

Dr. Beverly Douglas, Nashville, is secretary-treasurer.

ABSTRACTS OF CURRENT LITERATURE

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

Hyperthyroidism Complicating Pregnancy. Charles W. McLaughlin, Jr., and Leon S. McGoogan. American Journal of Obstetrics and Gynecology, Vol. 45, No. 4, April, 1943.

The problems presented by hyperthyroidism complicating pregnancy have been of great interest to surgeons and obstetricians alike during recent years. During the ten-year period from 1932 to 1942 a total of 6,112 patients were delivered in the University of Nebraska Hospital or on the out-call service under the supervision of the obstetric staff. Thyrotoxicosis was observed as a complication of pregnancy in nineteen women, an incidence of three-tenths per cent. An analysis of these nineteen patients was undertaken, together with a review of the experience of others, in an effort to determine the most satisfactory method of treatment.

The incidence of pregnancy in established thyroid disease is over three times as high as the incidence of hyperthyroidism developing during pregnancy. The thyrotoxicosis was definitely aggravated by the pregnancy in seventy-four per cent of the series,

increased in twenty-one per cent, and unaffected in five per cent.

Toxemia of pregnancy, varying in degree, occurred in 62.5 per cent of the eight patients admitted during the third trimester.

Eleven patients were treated conservatively and eight underwent surgery for their thyroid disease prior to delivery.

One fetal death occurred and there were two maternal deaths in this series. Both maternal deaths occurred in patients with adenomatous goiter and hyperthyroidism, confirming the opinion that this is the most serious type of thyroid disease complicating pregnancy.

Thyroidectomy is a safe surgical procedure during pregnancy and should be undertaken at any stage if conservative treatment does not control the thyrotoxicosis. The treatment of the patient with hyperthyroidism complicating pregnancy should be individualized. Surgical interference will be necessary more frequently in patients with adenomatous goiter and hyperthyroidism than in those with primary exophthalmic goiter.

The opinions expressed in the literature regarding the correct method of managing hyperthyroidism complicating pregnancy have been somewhat divergent. In general, there have been those who have favored conservatism in all cases, those who recommend thyroidectomy at any stage in the pregnancy, and a group who feel that every case must be individualized.

With the gradual accumulation of experience with thyrotoxicosis complicating pregnancy, and a better appreciation of the many factors requiring consideration, a definite trend toward individualization of the case is apparent. There can be little doubt that the pregnant woman with hyperthyroidism can successfully withstand a thyroidectomy, but the question remains the necessity and advisability of the procedure in all cases.

The combination of hyperthyroidism and toxemia of pregnancy in the same patient does not demand anything other than conservative therapy. The treatment of one condition in no way conflicts with the treatment of the other. Interruption of pregnancy should be considered only when it would be of definite value to the mother. The time of interruption will have to be individualized. The method used should be the one which will do the patient the least amount of harm and be the most likely to result in ultimate recovery of the mother and in the production of a normal live child.

Therapeutic abortion is favored by few authors today as a desirable method of relieving the hyperthyroidism. Fletcher has advised sterilization of all patients with hyperthyroidism whose delivery is accomplished by section, but this advice may be open to question.

All authors are agreed that adenomatous goiter with hyperthyroidism complicating pregnancy is more serious than exophthalmic goiter, but is fortunately less frequent. If the adenomatous goiter is accompanied by pressure symptoms or evidence of myocarditis, surgical therapy is definitely indicated. In this series, four of seven cases subjected to surgery during pregnancy were of this type and both of the maternal deaths were women with adenomatous goiter and hyperthyroidism. These patients seen near term must be very carefully supervised during their delivery and should have the benefit of thyroidectomy during the puerperium.

The use of iodine as a valuable therapeutic agent in the conservative treatment of hyperthyroidism during pregnancy is now generally accepted. There still exists some question as to its usefulness in adenomatous goiter with hyperthyroidism, but the former opinion that it definitely is contraindicated no longer holds. The value of Lugol's solution in controlling mild hyperthyroidism from exophthalmic goiter complicating pregnancy is now well established. These women tolerate small doses of iodine for prolonged periods during pregnancy, and in conjunction with rest and sedation the symptoms of hyperthyroidism may be adequately controlled until the pregnancy is terminated. Patients with exophthalmic goiter who do not respond to conservative measures may be safely subjected to thyroidectomy at any time this seems indicated. Those who are successfully carried through to the puerperium on conservative measures and who continue to evidence symptoms of hyperthyroidism should then be subjected to thyroidectomy.

Post-Partum Sterilization. F. R. Lock, R. C. Forman, and N. M. Webster. Southern Medical Journal, 36: 138-145 (February), 1943.

If sterilization is to be done at all, the logical time for doing it is during the post-partum period. The patient is certainly not then pregnant and will obviously not conceive as she might if operation is delayed. The indications for which sterilization were performed by Frank R. Lock and associates of Winston-Salem, North Carolina, in fifty-nine instances were: multiparity, forty-three cases; the patient's wish, eight cases; chronic nephritis, five cases; recurrent toxemia, six cases; hypertension, two cases; and rheumatic heart disease, repeated hyperemesis, recurrent thrombophlebitis, and previous Caesarean section, each one case. The morbidity for the fifty-nine patients was 8.5 per cent, judged by the standard adopted by the American Committee on Maternal Welfare, which is: temperature of 100.4 degrees Fahrenheit or over on any two days after the first twenty-four hours.

Any patient with an organic constitutional disease, such as chronic nephritis, hypertensive cardiovascular disease, rheumatic heart disease of pulmonary tuberculosis, is encouraged to be sterilized immediately post partum. Patients over thirty-five years of age who have had four or more babies are permitted to have the operation if they request it. Eclampsia usually is not an indication for sterilization, nor is sterilization a valid indication for Caesarean section.

Purely social and economic reasons, such as fear

of the hardships of future pregnancies and labors, are not valid reasons for sterilization, since the social and economic status may change, and hardships are usually soon forgotten.

In addition to the indications given, the character of the prenatal course, the type of labor and delivery, and the condition after delivery must be seriously considered. In general, patients who have had an uncomplicated labor and spontaneous delivery may be sterilized at the earliest convenient time. However, if there is some question that the patient may be contaminated, through prolonged rupture of the membranes, operate delivery or many rectal examinations the procedure is delayed until the fifth post-partum day, if no elevation of the temperature or pulse has occurred. Patients who have large varicosities are carefully observed before tubal ligation, since this condition predisposes to thrombophlebitis.

The technic of the operative procedure is as follows: preoperative sedation consists of 1/6 to 1/4 grain of morphine and 1/100 to 1/150 grain of hyoscine forty-five minutes before operation and three grains of seconal thirty minutes before operation. The abdomen is prepared and the abdominal wall infiltrated with one per cent procaine, with three drops per ounce of epinephrine added.

An incision about one and one-half inches long is made just below the upper margin of the fundus of the uterus. The wound is retracted laterally to expose the fallopian tubes, the pelvic viscera being left undisturbed except that occasionally gentle traction of the uterus with the gloved hand is necessary. The tube is picked up with Babcock clamps and one to two cubic centimeters of one per cent procaine is injected into the wall of the tube. The fimbriated extremity is identified and the midportion of the tube is lifted up with a Babcock clamp, forming a loop which is crushed and tied with 0 chromic catgut, care being taken not to ligate the larger vessels of the mesosalpinx that supply the ovary. The loop of the tube is excised and the ligature is cut off after it is certain that hemostasis is secured. The resected portion is carefully examined for positive identification.

Both tubes are ligated in this manner and the abdomen is closed in layers, using continuous 0 chromic catgut sutures. The skin is closed with a few interrupted sutures. Reduction of morbidity and postoperative complications may be accomplished by use of local anesthesia. The use of absorbable suture for ligation and excision of the tube results in retraction of the severed ends so that sterilization results from exudation and peritonealization of the severed ends as proved by observation of the tubes removed from a patient operated upon later for a dermoid cyst.

No deaths occurred in the entire series and in none was a serious complication encountered. High morbidity in the interval series (thirty per cent) is explained by the fact that other operative procedures were usually done at the same time. The postoperative hospital stay varied from four to forty-one days, an average of thirteen days in the group with interval tubal ligations. No postpartum patient remained in the hospital longer as a result of the procedure. In 150 patients followed from three months to twelve years, only two, or .72 per cent, failures occurred.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Effects Other Than Anti-Infectious of Sulfonamide Compounds on Eye. Moacyr E. Alvaro, M.D., Sao Paulo, Brazil. Archives of Ophthalmology, April, 1943.

The distribution of sulfonamide compounds in the eyes when these drugs are administered by mouth or parenterally or applied locally in the culde-sac or subjunctivally is discussed according to the findings in the current literature and to some of my experiments.

The several changes in the eye mentioned as toxic effects of sulfonamide compounds are: (1) palpebral edema, (2) conjunctivities, (3) chemosis, (4) scleral reaction, (5) numerous cells in the aqueous and iritis, (6) mydriasis, (7) cataract, (8) changes in the angioscotomas, (9) edema of the retina, (10) reduction of the visual fields, (11) retinal hemorrhages, (12) optic neuritis, (13) undefined or unidentified blurred vision, (14) transient hyperopia, astigmatism or myopia, and (15) changes in accommodation and heterophorias. Of these changes, transient myopia and the changes in accommodation seem to be the most frequent. Thirty-six cases of transient myopia came to my knowledge, and in my clinical experiments with patients who had to be treated with sulfonamide compounds I found reduced accommodation constantly.

The several pathogenic explanations for ocular changes due to the toxic effects of sulfonamide compounds are mentioned and discussed.

ORTHOPEDICS

By J. J. Ashby, M.D.
Doctors Building, Nashville

Flexion Treatment for Low-Back Pain. Louis W. Breck, M.D., and W. Compere Basom, M.D. The Journal of Bone and Joint Surgery, Vol XXV, No. 1 (January), 1943.

The flexion treatment may be utilized in patients with pain in the lower back, who have narrowed fourth or fifth lumbar discs, regardless of whether pain is due to subluxation or to posterior protrusion of the intervertebral disc. The following review of certain material, which is contained in the literature, indicates the basis for this statement.

Barr and Mixter stated: "Within the past decade it has been discovered that one of the common mechanical derangements causing sciatica is pos-

terior protrusion of the lumbar intervertebral discs." Craig and Walsh found that ninety per cent of the protrusions occurred at the fourth and fifth lumbar interspaces. Williams found that changes in the intervertebral disc were the cause of low-back pain and sciatica in ninety per cent of his patients. He believes that the downward subluxation of one vertebra on another, and the accompanying narrowing at the foramen of the exit of the nerve root, causes the sciatica by nerve-root compression. He stated that ninety per cent of the patients who were treated conservatively will be relieved to the extent that they do not feel the need of surgery.

When backache is caused by a narrowed disc with subluxation of the facets (usually found to be a lumbosacral subluxation), the patient experiences a sudden severe catch in the back with a localized burning pain. The lumbar lordosis is sometimes reduced, and is not infrequently replaced by a mild kyphosis. In chronic cases the lordosis may be increased. Recurrent attacks of pain are characteristic. Sciatica may commonly be present and may be the most marked symptom. Moderate tenderness is present on one or both sides of the spinous processes. Flexion may be limited, and a list or sciatic scoliosis may be present. An inequality of knee and ankle jerks and pain on straight-leg raising may be noted. A diminution of the skin sensation in the affected leg may be found. The narrowed disc and subluxated facets may be demonstrated in the roentgenogram.

Thus, after a careful history and a complete physical examination have been recorded, after roentgenograms in the anterioposterior and lateral planes have been taken, and after the other possible causes of low-back pain have been carefully considered, conservative flexion treatment should be instituted, if the narrowed disc seems to be the cause.

If there is no improvement after a thorough trial of two weeks of conservative therapy, the patient should be studied further, as he may have an unreducible disc or tumor of the spinal cord.

The treatment varies somewhat according to whether the backache is acute or chronic, and whether it is severe or mild. The acute severe cases are best treated by putting the patient in a hospital bed with the back rest raised to forty-five degrees, and the knee rest raised almost as far as it will go. If the patient is not in a hospital bed, he can be treated at home by means of a back rest and a knee support which place him in a position similar to that just described. The patient is kept on his back with the back rest and knee rest in place part of the time (usually two hours at a time, three or four times a day), and the rest of the time he lies on one side with his knees drawn up. He is advised never to lie flat on his face or flat on his back with his hips extended.

In addition to this, heat is used in the form of short-wave diathermy or a heat lamp. Massage is also given to help alleviate the pain and muscle spasm. The patient is given flexion exercises in bed the first day. The first exercise consists of pulling the knees up to the chest with the spine flexed, and the neck and chest brought well forward toward the knees. The patient is instructed to do this six times a day, starting with one each time and increasing until he is doing it ten times, six times a day. The patient is usually very much improved by the end of three to seven days, and can then be up and about. A few days later he can ordinarily return to work.

He is also given exercises to strengthen his abdominal muscles and to strengthen the muscles of the buttocks, so that he can maintain his position of flexion of the lumbar spine more easily. These exercises are not important in themselves, but strengthen the muscles used in assuming the correct posture, and impress upon the patient the importance of carrying the lumbar spine flexed. He is told never to lie on his face and to sit with the lumbar spine flexed by placing the buttocks forward on his chair and by assuming a slightly slumped position. He is instructed to keep his back flexed when lifting, and never to lift the object above the level of his pelvis.

In the milder acute attacks, the same regimen of treatment is followed, but often it is unnecessary to confine the patient to bed. It is important to give him adequate treatment, so that he does not develop a chronic backache. In addition to the postural training, it is sometimes desirable to give the patient a lumbosacral belt with flat stays in the back, which helps to remind him to keep his lower back flat.

In the group of patients with severe chronic low-back pain (with or without sciatica), the treatment is the same as in the severe acute cases. If the patient is not properly improved after two or three weeks in bed, he is placed in a flexed cast extending from the middle of the sacrum to the upper thoracic spine, with the points of pressure on the sacrum and upper thoracic spine behind, and the middle of the abdomen in front. Upon removing the cast, the postural training is instituted. The majority of the chronic cases will be greatly improved. If enough time is given, an operation is rarely necessary.

If the patient is consistently relieved by conservative flexion treatment, but continues to have recurrences, then operative fusion with restoration of the normal intervertebral space should be followed by permanent relief.

Farrell and MacCracken have found that in many patients, whose conditions were clinically indistinguishable from cases of protruding disc, spine fusion alone is as effective as laminectomy and fusion. The authors describe their type of spine fusion in which a block of bone from the tibia or ilium is wedged between the spinous processes separating the narrowed intervertebral space and reducing the subluxation of the posterior intervertebral joint. Grafts of bone are also placed on the laminae at the base of the spinous processes as is

customary in the ordinary spine-fusion procedure. They also fuse the posterior facets. Following the operation, the patient is placed in a body cast extending from the upper thoracic spine to the knees, with the hips flexed about thirty-five degrees and the lumbar spine in the correct degree of flexion.

The authors have operated on two cases with good results, although they have been done less than a year. They find that almost all their patients improve so much with the conservative treatment that they will not consent to a fusion operation.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

Ruptured Kidney. Paul A. Ferrier and William Knigge.

This study is based on 137 cases of renal trauma due to external violence seen at the Los Angeles County General Hospital during the past eight years.

The early symptoms are varying degrees of shock and hematuria, localized pain, and rigidity in the region of the injured kidney and in some cases a mass in the loin. In late cases evidence of sepsis may be present. Fractured ribs may also be present.

The diagnosis may be made by the history of trauma associated with gross hematuria. The X-ray findings with obliteration of the psoas shadow on the injured side, together with deviation of the spine. Excretory urograms may help in the diagnosis by demonstrating a normal kidney on one side and an abscence of excretions or filling defects on the injured side, or evidence of extravasation. Fifty-three of these cases had excretory urograms, forty-four of which showed conclusive findings, three questionable evidence and six were negative. The diagnosis was confirmed in the doubtful cases by a palpable mass, a retrograde pyelogram, or surgery. However, retrograde pyelograms are not recommended when the diagnosis can be made by other methods. It may produce further bleeding or sepsis.

The 137 cases are divided into four groups as follows: (1) less severely injured or contused, twenty-four cases; (2) severely injured, sixty-nine cases; (3) gunshot and stab wounds, thirteen cases; (4) severely injured kidneys with extensive skeletal and visceral injuries, thirty-one cases.

In the first group there was a history of definite trauma over the kidney area associated with gross hematuria from two to fourteen days. None suffered severe shock and all recovered with bed rest.

In the second group all had conclusive evidence of kidney rupture. Forty-nine of the sixty-nine cases in this group had positive X-ray findings. Of the twenty which had negative X-ray findings a mass was present. Fourteen had fractured ribs, four had fractured transverse processes, four had fractures of the pelvis without ruptured bladder, and nine had multiple fracture of the extremities. All recovered, twelve with the aid of surgery.

In the third group there were three stab wounds and ten gunshot wounds. These cases had a laparotomy for intra-abdominal injuries, six had extensive kidney injuries, and all six died of sepsis. Seven had less kidney injuries and recovered.

The last group all had ruptured kidneys and extensive visceral and skeletal injuries and all died.

The immediate treatment varies with the condition of the patient. When there is marked shock present, large doses of blood plasma, adrenal cortex, and fluids are given and external heat is applied. Frequent blood studies made, together with frequent blood pressure readings. If the bladder is filled with clots, they should be evacuated.

After the immediate shock has been combatted and the condition of the patient permits, procedure for a definite diagnosis should be attempted and also determine whether there are intra-abdominal injuries present. Once the diagnosis is completed, and this is difficult in some cases, the choice of surgery or palliative treatment is decided.

If the kidney alone is bleeding and no abdominal emergency exists and in spite of the continued transfusions, the blood pressure continues to fall and the pulse rate increases, the kidney should be explored.

If the hemorrhage is not grave, the vast majority will recover without surgery.

The prognosis is effected by age. There were forty patients under twenty years of age and they all recovered, six of which had surgery. Of the thirty-nine cases in the twenties, thirty-four recovered, three of which had surgery. In the next three decades, of forty-one cases, twenty-nine recovered, one with surgery. There were twenty beyond sixty years of age with fourteen deaths.

There were thirty-seven deaths in the total series of 137 cases or a mortality of twenty-seven per cent. Six of these deaths were in the gunshot and stab wound cases and died of secondary sepsis. Thirty-one deaths occurred in the more severely injured cases which were associated with visceral and skeletal injuries.

BOOK REVIEW

New and Nonofficial Remedies, 1942, Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1942. Cloth. Price, postpaid, $1.50. 671 + XCVII pp. Chicago: American Medical Association, 1942.

Perhaps the most important feature of this new volume of New and Nonofficial Remedies is the radical rearrangement it has undergone, which it

is believed will make the contents more accessible and therefore more valuable to the physician or other interested readers. Heretofore, the classification of products has been basically that of chemical relationship—the new arrangement is primarily according to therapeutic use, chemical classification being introduced by means of subheadings. In addition, the typographic style has been changed so as give greater prominence to the products of individual manufacturers. No valuable feature has been sacrificed. The book still fulfills its function of establishing chemical standards for new and nonofficial preparations which the council has found to be useful or to give adequate promise of usefulness in the treatment or prevention of disease. Its function as a guide to the most recent advances in therapeutics has been greatly enhanced.

Careful examination of the general discussions under the various heading and subheadings shows that the council has admirably performed its annual task of keeping the text abreast with the progress of medicine. The authoritative and compendious section of the sulfonamide derivatives is an outstanding example. So also is the chapter, Vitamins and Vitamin Preparations for Prophylactic and Therapeutic Use. Equally important though less extensive revisions have been made in such sections as Aluminum Compounds, Dextrose, Gonadotropic Substances, Liver and Stomach Preparations, Ovaries, Parathyroid, Pituitary, and Testes.

Among the newly-accepted drugs are: acetyl-beta-methyl-choline and the proprietary brand, Mecholyl Chloride, proposed for use by iontophoresis, orally and subcutaneously as a parasympathetic stimulant; adrenal cortex extract for parenteral use in the treatment of Addison's disease or of adrenal insufficiency of other types as well as prophylactically in surgical procedures involving the adrenal cortex; aluminum hydroxide gel with the proprietary brand, Creamalin, for oral use as an adjunct in the treatment of peptic (gastric and duodenal) ulcers; and normal human serum and normal human plasma.

Others worthy of mention are: cyclopropane, another general anesthetic, now included in the U. S. P.; amylcaine hydrochloride, another proprietary local anesthetic and pernoston sodium, the sodium salt of the previously-accepted proprietary barbital derivative, pernoston.

The indices of the new volume of New and Nonofficial Remedies are of the same order and plans as in previous editions. A general index lists accepted articles, including those not described. This is followed by an index to distributors in which appear all the council-accepted articles listed under their respective manufacturers. Finally, a bibliographical index is added for listing proprietary and unofficial articles not included in N. N. R. This includes references to the council publications concerning each such article as has appeared in *The Journal of the American Medical Association, Reports of the Council on Pharmacy and Chemistry, Propaganda for Reform,* Vol. 1 and 2, or *Reports of the American Medical Association Chemical Laboratory.*

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.
President-Elect—Dr. Kyle C. Copenhaver, Medical Arts Building, Knoxville.
Vice-President for West Tennessee—Dr. J. W. Oursler, Humboldt.
Vice-President for Middle Tennessee—Dr. Burnett W. Wright, Nashville.
Vice-President for East Tennessee—Dr. J. C. Brooks, Chattanooga.
Secretary-Editor—Dr. H. H. Shoulders.
Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1946).
Dr. E. R. Zemp, Walnut Street, Knoxville.
Dr. B. L. Jacobs, Provident Building, Chattanooga (1946).
Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).
Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Jere L. Crook, Jackson.
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.
Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1946).
Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennesse (1946).

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H. P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	I. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	R. M. Workman, Clarksville	M. L. Shelby, Clarksville	Jack Ross, Clarksville
Obion			D. S. Latimer, Union City
Overton	W. M. Breeding, Livingston		A. B. Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood	W. W. Hill, Harriman	
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			W. M. Dedman, Gallatin
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. W. L. Williamson, Memphis
Dr. L. W. Edwards, Nashville
Dr. E. G. Wood, Knoxville
Dr. A. M. Patterson, Chattanooga
Dr. J. O. Manier, Nashville

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville (1945)
Dr. A. F. Cooper, Memphis (1944)
Dr. Cecil E. Newell, Chattanooga (1946)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. E. A. Gilbert, Chattanooga (1944)
Dr. R. R. Crowe, Nashville (1946)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Lee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1946)
Dr. John B. Steele, Chattanooga (1946)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1946)
Dr. T. R. Ray, Shelbyville (1946)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. O. N. Bryan, *ex officio*, Nashville

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1948)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1946)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1946)
Dr. John M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. C. H. Sanford, Memphis (1944)
Dr. D. W. Smith, Nashville (1946)

COMMITTEE ON MEMOIRS

Dr. James O. Walker, Chairman, Franklin (1945)
Dr. D. W. Hailey, Nashville (1944)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1946)
Dr. J. L. Hankins, Johnson City (1946)

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. John S. Cayce, Nashville (1944)
Dr. J. B. Fitts, Chattanooga (1944)
Dr. M. L. Hefley, Knoxville (1946)
Dr. C. W. Friberg, Johnson City (1946)

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. W. R. Cross, Knoxville (1946)

COMMITTEE ON CANCER

Dr. C. H. Heacock, Chairman, Memphis (1944)
Dr. Ralph H. Monger, Knoxville (1946)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. Stanton S. Marchbanks, Chattanooga (1944)
Dr. Howard King, Nashville (1946)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. C. R. Thomas, Chattanooga (1944)
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1946)
Dr. George Inge, Knoxville (1946)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. Carrington Harrison, Nashville (1946)

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. E. T. Newell, Chattanooga (1945)
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Robert F. Patterson, Knoxville (1946)

COMMITTEE ON PREPAYMENT PLANS FOR MEDICAL AND HOSPITAL SERVICES

Dr. J. O. Manier, Chairman, Nashville
Dr. R. R. Brown, Nashville
Dr. J. C. Brooks, Chattanooga
Dr. M. S. Roberts, Knoxville
Dr. A. R. Porter, Jr., Memphis
Dr. W. D. Stinson, Memphis

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatic Society—
President—Dr. Frazier Binns, Nashville*
Vice-President—Dr. O. L. Von Canon, Chattanooga*
Secretary—Dr. Gilbert Eblen, Knoxville*

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland*
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis*
Vice-President—Dr. Franklin B. Bogart, Chattanooga*
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

---

*In service.

PROFESSIONAL DIRECTORY

ALLERGY

HERMAN SPITZ, M.D., F.A.S.C.P.
319-25 Doctors Building
Nashville, Tenn.
ALLERGIC DISEASES
Hay Fever, Bronchial Asthma, Urticaria
Allergic Toxemia, Migraine, Etc.

INTERNAL MEDICINE

E. M. EDINGTON, M.D.
505 DOCTORS BLDG.
Knoxville, Tenn.
Endocrinology

INTERNAL MEDICINE

JESSE C. HILL, M.D.
409 Doctors Building
Knoxville, Tennessee
Mental and Nervous Diseases

R. B. WOOD, M.D.
DAN R. THOMAS, M.D.
501 MEDICAL ARTS BUILDING
Knoxville, Tenn.
Diagnosis and Internal Medicine

NEUROLOGICAL SURGERY

THOS. D. McKINNEY, M.D., F.A.C.S.
SURGERY OF THE NERVOUS SYSTEM EXCLUSIVELY
428 Doctors Building
Nashville, Tenn.

FOR SALE

RADIUM AND X-RAY THERAPY

EMMETT E. BROWN, M.D.
DERMATOLOGY, X-RAY
DIAGNOSIS AND THERAPY
INDUCTOTHERM FEVER THERAPY
500 Doctors Building
Nashville, Tenn.

THE NEWELL and NEWELL SANITARIUM
705-709 Walnut Street
CHATTANOOGA, TENNESSEE
Radium and Deep Therapy
in
The Treatment of the Malignancies and Allied Conditions

SURGERY AND GYNECOLOGY

CHAS. F. CLAYTON, M.D., M.Sc. (Med.)
GENERAL SURGERY
and
RECTAL DISEASES
106 Doctors Building
Knoxville, Tennessee

HAGGARD CLINIC
Doctors Building
Nashville, Tennessee
C. R. CRUTCHFIELD, M.D.
C. R. YANCEY, M.D.

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 6

JUNE, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

DISEASES OF THE MEDITERRANEAN BASIN, Edward L. Turner, M.D., Nashville . . . 205
MEDICAL PRACTICE IN WARTIME, William Calvert Chaney, M.D., M.S. in Medicine, F.A.C.P., Memphis . 210
FEDERAL LEGISLATIVE BULLETIN 24 . . . 212
CANCER OF THE PROSTATE, Burnett W. Wright, M.D., Nashville . . . 223
TENNESSEE DOCTORS AND THE MILITARY SERVICE . 226
EDITORIAL . . . 232
DEATHS . . . 234
RESOLUTIONS . . . 234
NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE . . . 235
NEWS NOTES AND COMMENTS . . . 235
MEDICAL SOCIETIES . . . 236
OTHER MEDICAL SOCIETIES . . . 236
ABSTRACTS OF CURRENT LITERATURE . . . 237
LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION . . . 244
STANDING COMMITTEES . . . 245
INDEX TO ADVERTISERS . . . XXII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

BACKGROUND
Three Decades of Clinical Experience

THE use of cow's milk, water, and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

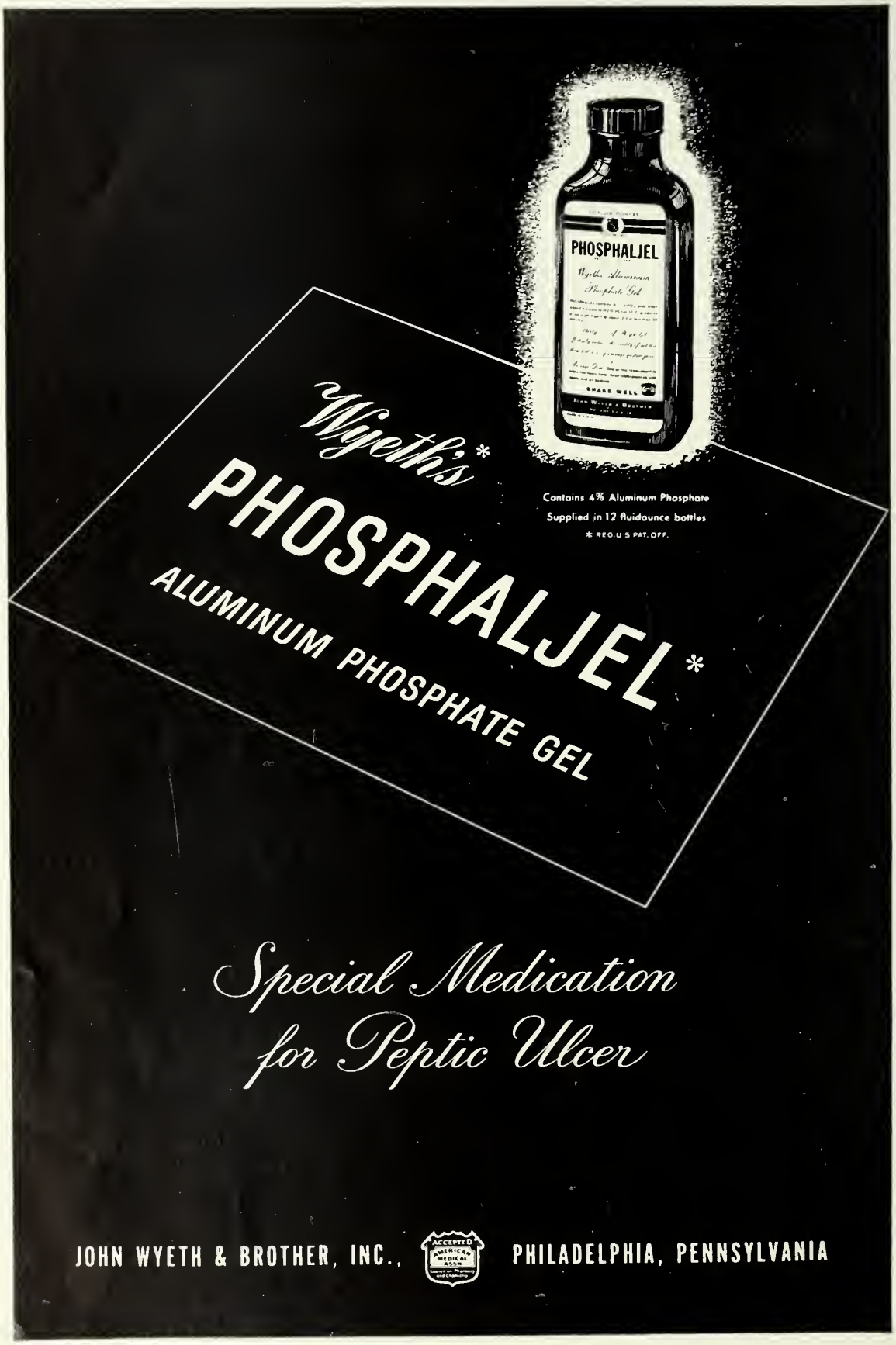
DEXTRI-MALTOSE No. 1 (with 2% sodium chloride), for normal babies.
DEXTRI-MALTOSE No. 2 (plain, salt free), permits salt modifications by the physician.
DEXTRI-MALTOSE No. 3 (with 3% potassium bicarbonate), for constipated babies.

These products are hypo-allergenic

DEXTRI-MALTOSE

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons. Mead Johnson & Company, Evansville, Ind., U. S. A.

JUL 29 1943
MEDICAL LIBRARY


PHOSPHALJEL
Wyeth's*
PHOSPHALJEL*
ALUMINUM PHOSPHATE GEL
Contains 4% Aluminum Phosphate
Supplied in 12 fluidounce bottles
* REG. U. S. PAT. OFF.
Special Medication
for Peptic Ulcer
JOHN WYETH & BROTHER, INC.,
ACCEPTED
PHILADELPHIA, PENNSYLVANIA

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M. HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI JUNE, 1943 No. 6

DISEASES OF THE MEDITERRANEAN BASIN*

EDWARD L. TURNER, M.D., Nashville

In 1935 the late Earl B. McKinley published a preliminary survey of the incidence and distribution of tropical and certain other diseases and entitled his report, "Geography of Disease." Dr. Ellis H. Hudson of Deir-ez-Zor and I wrote the report for Syria and Lebanon which was used in McKinley's survey. The importance of the geography of disease today cannot be overestimated. It is no longer possible to classify diseases as tropical, for the potentialities of widespread dissemination of diseases heretofore labeled as tropical are greater today than they have ever been before in the history of mankind. World-wide distribution of military units, increased transportation contacts, and the rapidity of transportation has increased the danger of disease dissemination unless precautions of the most intensive type are carefully followed through.

In glancing through McKinley's report a few nights ago I note the following statement:

"From the collected reprints and from reports sent to us by Dr. E. H. Hudson and Dr. E. L. Turner, we note the following diseases of interest in this survey in Syria and Lebanon: malaria, leishmaniasis, dengue fever, plague, typhus fever, undulant fever, leprosy, syphilis, amebic dysentery, bacillary dysentery, the typhoid fevers, ascariasis, hookworm disease, elephantiasis, various skin diseases, and the respiratory infections including tuberculosis."

To this should be added schistosomiasis and hydatid disease.

Syria and Lebanon are located at the eastern end of the Mediterranean Sea, tucked in between Palestine, Trans-Jordan, Iraq, and Turkey. The diseases seen in this region are fairly characteristic of those seen in other parts of the Mediterranean Basin and especially along the North African coast. Although you are probably all familiar with most of the diseases mentioned previously, there are some whose names mean relatively little to the average physician in medical practice in the United States. You have all heard of them in medical schools, possibly read about them, but have not seen such cases. It is to be hoped that those of us who remain here at home will not have the privilege of seeing these diseases in our midst. On the other hand, with our troops scattered throughout the world and with many men in the region of the Mediterranean Basin, it is not at all impossible that some of these diseases, especially those with long and silent incubation periods, will be deposited in our midst. Thus it is important that we refresh our memories in regard to some of these diseases.

I do not intend this evening to discuss all of the diseases of the Mediterranean Basin;

*Read before the Nashville Academy of Medicine, Nashville, May 4, 1943.

that would involve a six months' intensive course. I shall restrict my presentation to three diseases that are relatively common in the Mediterranean area and uncommon or absent from our midst here at home. These are schistosomiasis, hydatid disease, and leishmaniasis.

The form of schistosomiasis seen in the Near East is caused by the blood fluke known as Schistosoma haematobium or Bilharzia haematobia. The disease is particularly widespread in Egypt along the Nile River and there is also an endemic area in Northern Palestine. It is also found in parts of Arabia, in Syria, India, and China, all of which areas now are the sites of location of some of our troops. It is present in Japan, where we hope some of our troops will be someday. The disease was first described by Bilharz in 1851, the year he discovered the parasite that causes it. All of the natives of Egypt know the term Bilharzia and anyone developing a bloody urine is recognized as possibly having this disease. There are other forms of schistosomiasis known as mansoni and as japonicum, but they are not endemic in the Mediterranean area.

The parasite of Bilharzia has separate sexes with the male carrying the female in a gynecophorous canal. The female passes oval eggs about .16 millimeters long, and these eggs have a sharp terminal spine. The eggs are hatched in water and a small miracidium escapes. This is a ciliated embryo which enters the bodies of snails infesting the river water in these areas. In the body of the snail the miracidium develops into a sporocyst, and in these sporocysts large numbers of cercariae develop. The cercariae stage is the final larval transformation of these trematode worms. It has an oval body with an elongated tail somewhat resembling a very small tadpole. These little cercariae escape from the body of the snail, are set free in the water and encyst on aquatic weeds and grass.

Man is infected by ingesting fruits, vegetables, other foods, and water contaminated with the cercariae and also by penetration of the skin. The cercariae then get into the lymphatics and venules. In the liver the cercariae develop, attain sexual maturity, and the female begins to produce the characteristic terminal-spined eggs. It requires from thirty to sixty days from the time of infection to the production of ova in the case of Schistosoma haematobium, about twenty-eight days for Schistosoma japonicum, and from thirty-seven to forty-four days for Schistosoma mansoni.

Schistosoma haematobium tends to migrate to the veins of the bladder and rectum, where they produce their eggs. These work their way through the walls of the bladder and rectum, escaping in the urine and feces, giving rise to the haematuria. The parasites and some of the eggs remain in the tissues, producing irritation with fibroid changes, and give rise to papillomata, ulcerations, and polypoid reactions. Marked changes can also appear in the rectum. Furthermore, they may collect in the bladder as foreign bodies and form the nuclei of calculi which adds insult to injury from the standpoint of the clinical picture.

As far as the symptomatology is concerned, these Schistosoma infections in some individuals cause little or no inconvenience, but in most cases they produce an irritability of the bladder with a dull pain in the perineum and haematuria. This is followed by chronic cystitis with thickening of the bladder walls as a result of the irritation. The anemia caused by these hemorrhages is usually not as bad as the anemia that is observed from such parasitic problems as hookworm, but it may be sufficient to give rise to considerable symptomatology in some patients. There is usually an eosinophilia and a moderate leucocytosis. When the rectum is involved straining and tenesmus with passage of mucus and blood occurs. There may also be a chronic ulcerated proctitis and in the female there may be an associated chronic vaginitis. In the chronic cases urinary calculi with periurethral abscesses and perineal fistuli may develop. The parasites that lodge in the portal veins may cause very few symptoms in some cases, but in others may actually give rise to a hepatic cirrhosis because of the thickening of the periportal tissues.

Schistosomiasis can be treated rather successfully with the use of antimony. Potassium or sodium antimony tartrate is ordinarily used and is administered intravenously. The initial dose is not more than thirty milligrams. It can be increased by thirty milligrams per dose to a maximum dosage of about 200 milligrams. It is given every two or three days until a total of about two grams of the drug has been administered. As far as prevention is concerned, it is important that individuals keep out of infested waters.

Leishmaniasis is fairly widely distributed over the world where it seems to occur in a number of different forms. In recent years in the United States, we have been made to realize that granuloma inguinale is due to a leishmanial organism. Investigators now recognize three main types of leishmanial organisms — namely, donovi, which is responsible for the visceral leishmaniasis or kala azar; Leishmania tropica, which is responsible for the cutaneous leishmaniasis or oriental sore; and Leishmania braziliensis, responsible for mucocutaneous leishmaniasis or Espundia. This latter organism is responsible for the leishmanial lesions seen in South and Central America, while the donovi and tropica are both endemic in the Mediterranean Basin. Kala azar, also known as visceral leishmaniasis, tropical splenomegalia, or dumdum fever, is endemic in the Mediterranean countries, Asia Minor, Iraq, Russia, India, Turkestan, China, Sudan, and Abyssinia. The disease is transmitted from man to an insect vector and then to other human beings. There is still some doubt as to whether the vectors are limited to sand flies or whether the common everyday bedbug may also transmit the disease. It is even felt that some fleas may be possible vectors. The incubation period is a variable factor. The disease itself starts with an irregular fever. The spleen enlarges early and may reach tremendous proportions. The liver in untreated cases also enlarges by the fifth or sixth month of the disease. There is rather marked anemia and progressive emaciation. As time goes on a curious pigmentation appears which has given rise to the name of black fever in some regions. Diarrhea and dysentery frequently occur and leucopenia is marked. Untreated cases have about a ninety per cent mortality and survive from periods of a few weeks to two years. Treated cases, on the other hand, have a mortality of only about ten per cent so that recognition and adequate treatment is of paramount importance.

The diagnosis is made by finding the Donovan bodies in the blood stream or in spleen or liver punctures. If the blood is being examined for these bodies, it is advisable to citrate it, then centrifuge the specimen and examine the material at the bottom of the tube. There are a number of tests that have been devised to aid in the diagnosis of this condition. The formal-gel test, or aldehyde test, and the antimony precipitation test are helpful. Globulin is greatly increased in its relation to albumin in the blood plasma of these patients. It can be precipitated from the blood by dilution in water, and it is suggestive of kala azar when present in abnormally increased amounts if other kala azar symptoms and signs also exist.

Fortunately, this horrible disease has an almost specific remedy. Antimony, if used early, produces miraculous results. Potassium or sodium antimony tartrate should be administered intravenously twice a week. It is best to give it in one per cent solution and never over two per cent solution. The solutions should be freshly prepared each time they are given. The dosage at the beginning for an average adult should be about thirty milligrams increased by thirty milligrams until a maximum of 120 to 180 milligrams are given each time until a total dosage of two grams has been given. It has been found that the pentavalent antimony preparations also are satisfactory. Such preparations as stibosan, neostibosan, stibamine, and urea-stibamine give very satisfactory results.

The other form of leishmaniasis seen in the Near East and in the Mediterranean Basin is due to Leishmania tropica and causes cutaneous lesions. The condition is known as oriental sore, Delhi ulcer, Aleppo boil, or Bagdad boil. Here again the transmission is through insect bites and the

bulk of evidence points to the sand fly as the vector. The incubation period is variable and lasts from one to eight weeks. The lesion starts as a papule which gradually enlarges, assumes a rather purplish tinge, develops a glazed surface and then usually ulcerates. After ulceration, it has the appearance at times of a gummatous lesion. If the condition is left alone, it is self-limited and heals in anywhere from four or five to eighteen months. Usually it requires from five to seven months for these lesions to heal. They leave scars. They also leave an immunity.

The diagnosis is made by finding the parasites in cultures taken from early lesions or in the margin of the ulcer. The disease responds to the same treatment as is used for kala azar. This treatment can be reinforced by the local application of two per cent antimony ointment or by the use of X-ray or radium pack treatment.

Hydatid disease exists in numerous areas along the Mediterranean Basin. In 1935-36 two of my associates and I made a survey of the incidence of hydatid disease in sheep, goats, cattle, camels, and man in Syria. We found that 22.1 per cent of the sheep and goats slaughtered in the abattoir at Beirut had hydatid cysts in one or more of their visceral organs and 45.1 per cent of the cattle were infected. In Damascus at the abattoir we found that 28.5 per cent of the sheep and goats were infected, and in that city we also examined six camels and found all of them to have hydatid cysts. Further north in the city of Homs we found 41.4 per cent of the sheep and 13.8 per cent of the goats infected, and five camels examined there all had hydatid cysts. In the city of Aleppo, still farther north, we found nearly twenty-eight per cent of all the sheep and goats infected and four camels slaughtered at the abattoir during our studies there and all had hydatid cysts. In a group of 14,057 case records studied at the hospital of the American University of Beirut, we found one out of every 223 patients infected with hydatid disease. Dogs, which are the definitive hosts for the adult worm stage of this disease, also had a tremendous incidence of infection.

This disease is important because of the very long, slow developmental period which is entirely asymptomatic in the majority of patients. The adult worm is carried in the intestine of the dog, wolf, jackal, or fox. It is the smallest of all tapeworms. It has a scolex with two circular rows of hooks and the entire worm does not have over four proglottides. Only the terminal proglottide is sexually mature and it may contain up to 800 eggs. These eggs are passed in the stool of the animal. One of the most common causes of infection, especially in children, comes from their playing with dogs. The eggs, however, can be ingested from food that has been contaminated by flies that have visited contaminated dog excreta before alighting on the food. Water supplies can also be contaminated with these eggs. Grazing animals are infected by ingesting the eggs from contaminated grass or water.

When the eggs are ingested by the human being, or by sheep, or cattle, the shell is digested in the stomach. The oncosphere escapes, penetrates the stomach wall and gets into the portal blood. About eight hours after the eggs have been swallowed, it is possible to find the oncospheres in the liver, where some of them lodge, while others may pass on into the lungs and, if they manage to pass through the pulmonary capillaries, may be then disseminated to the brain or to any other part of the body. It takes about three weeks for one of these oncospheres to develop a little vesicle in the liver that is just visible to the naked eye. It requires at least three months for such a lesion to develop to as large as five centimeters in diameter. The rate of growth is exceedingly variable. During this growth phase there may be no symptoms at all. On the other hand, some individuals develop a curious fever, some have allergic reactions with ulcerative and cutaneous eruptions. Usually, however, hydatids cause their real trouble as a result of growth, destruction of local surrounding tissue, and pressure. I have seen hydatids of the brain simulate various kinds of brain tumors, Pott's disease of the spine with destruction of vertebrae and with compression

myelitis, tumors of the lung, tumors of the urinary tract, etc.

The chief problem, as far as hydatid is concerned, is prevention, for there is no medication available at the present time which will cure this disease. Operative removal of hydatid cysts, when properly diagnosed and carefully handled, result in cure. It is unwise to puncture and aspirate them because at times some of the fluid escapes into the tissues, patient may develop an allergy, and a subsequent escape of fluid from rupture may actually result in death. Suppuration sometimes follows simple puncture. Many hydatid cysts develop to a certain stage, then the parasite dies, and the cyst becomes harmless. However, the dangers of hydatid cysts in certain locations of the body are potentially very grave. In preventing hydatid disease the control of dogs is of primary importance. Infection of dogs can be prevented if they cannot obtain contaminated visceral material from the carcasses of sheep, cattle, and other animals developing cysts. In countries like Australia, where hydatid disease in sheep dogs was prevalent, a very satisfactory control program has been developed through widespread education of the public.

I have given you a brief survey of three of the diseases of the Mediterranean Basin. These have been selected because of the fact that our troops are now widely scattered in this region and because they all have relatively long incubation periods. Any one of these diseases can be transmitted from this area back to the United States during the long, relatively silent incubation period without the individual or the military medical service realizing their presence. In my opinion, undoubtedly, we shall see some of these conditions develop in our midst as times goes on. It is rather important, therefore, that we be prepared to include these conditions in our differential diagnostic thinking as we examine men who return from the Mediterranean Basin.

MEDICAL PRACTICE IN WARTIME*

WILLIAM CALVERT CHANEY, M.D., M.S. in Medicine, F.A.C.P., Memphis

What are the duties of those physicians who want to do their part on the home front? The average medical man probably hasn't fully realized just what an important post of honor he occupies in this global war.

His first duty is to keep himself physically fit. When a doctor is worn out, not only is he a ready prey for many diseases, notably pneumonia, but his judgment cannot be at its best in the treatment of his patients. Colonel Rowntree has said that the average physician is working seven days a week and a total of eighty hours! That is entirely too much work for anyone and especially for a doctor who is over the age of fifty. A study made among laborers in the war industries in England has shown that a man who works eighty-four hours per week actually turns out thirteen per cent less than the man who works but fifty-four hours. Studies have also been made of hours of work and the resulting fatigue in aviators and truck drivers. It has been shown that fatigue adds up very rapidly after a truck driver has been on the road for ten hours. If he is over the age of forty and drives beyond this limit of time, he really becomes a menace on the highway. The nerve strain of practicing medicine is certainly as great if not greater than that of driving an automobile, and a physician who works over ten hours a day is not being fair to himself nor to his patient. If he must work such long hours, let him see those cases that demand his keenest judgment during the morning hours and save the minor ailments for the late afternoons.

Second, the doctor should be willing to care for his share of the civilian population —1,500 civilians to be exact. The burden should rest evenly upon every physician's shoulders. If he is highly specialized, he should broaden out the scope of his work to include more cases. All should make night calls if they are necessary and not leave them to a few. No one likes to make them, but it is a service that the doctor owes the public.

Third, it is the duty of the physician to familiarize himself with the recent advances made in both surgery and medicine. He must know how to cope with shock, incident to severe hemorrhage and tissue trauma, burns of all kinds, intestinal obstruction, strangulation and general peritonitis. He must know of the value of the sulfonamides, blood plasma, and a host of other lifesaving measures.

Fourth, he must know just what his duties are if there should be an air raid either with high explosives or with war gases sprayed from fast-moving planes. In the case of the war gases, if the correct treatment is carried out in the first thirty minutes, in addition to saving lives, it will save many months of suffering and hospital care.

Fifth, the doctor must be on the alert for those diseases that probably have never been seen in his community before, but are brought to his very door by the rapid transportation of troops from the war zones. Epidemics may be started at many places. The greatest danger will probably come from the diseases allied to typhus fever, the so-called Rickettsial diseases, and then bubonic plague, the severe dysenteries, and the more severe forms of malaria.

Sixth, the physician should feel responsible for the health of his community. He must, therefore, keep *out* all irregular practitioners who would prey upon the sick in times like these. Any man who practices a cult that may do harm to a worker on a farm or in a factory is unwittingly an enemy of our democracy and should be so regarded.

Seventh, it is the physician's responsibility to guard zealously the future of the American way of practicing medicine. Those doctors who have left their homes and their practices to go into the Army or the Navy are making the real sacrifice and those who remain at home owe it to them to keep the practice of medicine on that high plane where it belongs.

---

*Read before the American College of Surgeons' Regional Meeting on March 26, 1943.

Those laymen who would tell the medical profession just how medicine should be practiced actually know as much about this subject as they know about piloting a flying fortress or steering a submarine. These men of superminds who would with one stroke of the pen socialize medicine in a day would do well to study the ways of evolution and learn how many years it takes nature to make its changes. Nearly every year unscrupulous politicians in their effort to curry favor hold out to the public the plum of free medical service.

At the present time we are hearing much about the American Beveridge Plan. According to Mrs. Perkins, we should not only have hospitalization at state expense, but also "a national health service" which would care for 100 per cent of the people by a system of tapping the nation's pay roll. Sir William Beveridge concedes that his scheme might do away with private practice entirely.

If Congress shows any inclination to start out on such radical social reforms in medicine, organized medicine, organized dentistry, the nursing profession, hospital organizations, and insurance companies will immediately work together to defeat these reforms. All together, the professions, the hospitals, and the insurance companies will constitute a powerful minority, and such a minority could win out if all the component parts would stick together.

Eighth, the physician must remember those doctors who are in the armed forces and see to it that a place is ready for them when they return. Those medical men who have brothers, sons, or close relatives in the various medical corps know now what attitude to take toward them and what they will do for them after the war. There are many physicians all over the United States who are willing and anxious to take an equally positive stand toward the men in the services if only a way were shown them. I should like to see this active attitude of interest in the men of the armed forces sponsored by the American College of Surgeons and the American College of Physicians. Such a movement of active interest in these men if fostered by these two great societies would assure its success and would be a tremendous step toward keeping our medical ranks an undivided barrier against socialized medicine during the postwar period. There must be no men left to stand in the medical bread line after this war as there was in the last one.

Doctors who now find it necessary to employ one or more assistants or associates should employ these men for the duration of the war only. These positions rightfully belong to the young men now in uniform. Those physicians who do not have the need of assistants must struggle equally hard or harder to care for the ills of the 1,500 souls entrusted to them. It is not only the sacred duty of each physician to give unstintingly of his time and skill to his enormous practice, but it is equally his duty to keep his practice intact, so that he can share it with the doctors now at war when they return. The real attitude of the doctor at home should be and probably is: "God speed our victory and the day when these men can come home and take some of this load off my shoulders."

FEDERAL LEGISLATIVE BULLETIN 24

From January 6, the date on which the Seventy-Eighth Congress convened, until February 1, over 2,300 bills and joint resolutions were introduced in the Senate and House and referred to appropriate committees for possible action. There follows a brief analysis of such of these measures as seem to be of medical interest.

Reorganization of United States Public Health Service.—S. 400, introduced by Senator Thomas, Utah, and H. R. 649, introduced by Representative Bulwinkle, North Carolina, and referred, respectively, to the Senate Committee on Education and Labor and to the House Committee on Interstate and Foreign Commerce. Companion bills for the organization and functions of the Public Health Service.

Comment.—These companion bills, introduced at the request of the Federal Security Agency, propose that the United States Public Health Service shall consist of the Office of the Surgeon General, the National Institute of Health, and two bureaus, to be known as the Bureau of Medical Services and the Bureau of State Services. The Surgeon General of the United States Public Health Service, under the supervision and direction of the Federal Security Administrator, is to be authorized to assign to the Office of the Surgeon General, to the National Institute of Health, and to the two bureaus, respectively, the several functions of the Public Health Service and to establish such divisions, sections, and other units as may be necessary. He may, under such supervision and direction, abolish existing divisions, sections, and other units and, hereafter, may establish, transfer and consolidate divisions, sections, and other units and reassign their functions for the efficiency of the service.

The director of the National Institute of Health and the chiefs of each of the bureaus established will be commissioned medical officers detailed by the Surgeon General from the regular corps and while so detailed will be Assistant Surgeons General and will have the same grade and receive the same pay and allowances as the assistant to the Surgeon General. Medical officers below the grade of medical director may be detailed by the Surgeon General from the regular corps to serve as chiefs of divisions, and not more than six of such officers at one time while so detailed shall have the temporary grade and receive temporarily the pay and allowances of a medical director.

The record of each commissioned officer of the regular corps initially appointed above the grade of assistant surgeon, after the first three years of service in such grade, will be reviewed under regulations approved by the President, and any such officer who is found to be unqualified for further service shall be separated from the service and paid six months' pay and allowances. Original appointments in the commissioned corps of the Public Health Service may be made to a junior grade which will correspond to that of a second lieutenant in the Medical Department of the Army and persons so appointed will be entitled to the same pay and allowances as second lieutenants in the Medical Department of the Army. After not less than two years of service each such appointee may be examined under regulations prescribed by the President and upon such examination will be either promoted to the grade of assistant surgeon or be separated from the service.

In the absence or disability of the Surgeon General and the assistant to the Surgeon General, or in the event of a vacancy in the office of both, the Assistant Surgeons General shall act as Surgeon General in the order of their designation for such purpose by the Surgeon General.

While no action has been taken on this proposal at the time this bulletin is being prepared, it is understood that the Senate Committee on Education and Labor contemplates action on S. 400 within the near future.

Vivisection in the District of Columbia.—S. 434, introduced by Senator Langer, and H. R. 33, introduced by Representative Burdick, both of North Dakota. Pending, respectively, in the Senate and House Com-

mittees on the District of Columbia. Companion bills to prohibit experiments upon living dogs in the District of Columbia.

Comment. — These bills, identical in phraseology, provide that from and after the passage of the measure it shall be a misdemeanor for any person to experiment or operate in any manner whatsoever upon any living dog, for any purpose other than the healing or curing of the dog, in the District of Columbia. Any person convicted of a violation of the measure will be subject to a fine of not less than $100 nor more than $500, or imprisonment for a term of not less than three months nor more than one year, or both.

Pharmacy Corps in the Medical Department of the Army.—S. 216, introduced by Senator Reynolds, North Carolina, and H. R. 997, introduced by Representative Durham, North Carolina, and pending, respectively, in the Senate and House Committees on Military Affairs. Companion bills to amend certain provisions of the National Defense Act of June 3, 1916, as amended, relating to the Medical Department of the Regular Army.

Comment.—These bills propose to strike from the National Defense Act all reference to the Medical Administrative Corps and in place of that corps to make provision for a Pharmacy Corps in the Medical Department of the Regular Army, to be composed of seventy-two officers. Appointments in the Pharmacy Corps will be made in the grade of second lieutenant from pharmacists between ages of twenty-one and thirty-two years who are graduates of recognized schools or colleges of pharmacy requiring four years of instruction for graduation, under such regulations and after such examinations as the Secretary of War shall prescribe. An officer of the Pharmacy Corps will be promoted to the grade of first lieutenant after three years' service, to the grade of captain after six years' service, to the grade of major after twelve years' service, to the grade of lieutenant colonel after twenty years' service, and to the grade of colonel after twenty-six years' service.

Chiropractors and the United States Employees' Compensation Act.—S. 345, introduced by Senator Murdock, Utah, for himself and Senator Gillette, Iowa, and H. R. 786, introduced by Representative Tolan, California, and pending respectively in the Senate Committee on Education and Labor and the House Committee on the Judiciary. Companion bills to amend Section 40 of the United States Employees' Compensation Act.

Comment.—These bills, in effect, propose to permit chiropractors to treat the beneficiaries of the United States Employees' Compensation Act. The Senate bill, S. 345, as originally printed, stated on its face that it had been referred to the Senate Committee on the Judiciary. Subsequently, however, it was apparently rereferred to the Senate Committee on Education and Labor.

Temporary Permits to Practice the Healing Art in the District of Columbia.—H. R. 1457, introduced by Representative Randolph, West Virginia, and pending in the House Committee on the District of Columbia. A bill to amend an Act entitled "An Act to regulate the practice of the healing art to protect the public health in the District of Columbia," approved February 27, 1929.

Comment.—This bill proposes to authorize the Commission on Licensure to issue temporary permits to practice the healing art for a period of one year and to issue renewals thereof for a similar period upon application. All temporary permits automatically terminate six months after the end of the present war. Each applicant for a temporary permit will be required to submit proof satisfactory to the commission that he is over twenty-one years of age, of good moral character, and has had sufficient professional training and experience to warrant the issuance of the permit. The commission will have the power to suspend or revoke any temporary permit on evidence showing to the satisfaction of the commission that the holder has been guilty of professional misconduct or is professionally incapacitated or has been convicted of an offense involving moral turpitude.

Alteration of Fingerprints.—H. R. 1352, introduced by Representative Dickstein, New York, and pending in the House Com-

mittee on the Judiciary. A bill making it a federal offense to alter the inner surface of the hand for the purpose of preventing identification by the use of fingerprints.

Comment.—Under this bill it will be unlawful to alter or attempt to alter any part of the inner surface of one's own or of any other person's hand or hands for the purpose of preventing identification by the use of fingerprints. The penalty for violation will be a fine of not more than $5,000 or imprisonment for not more than five years, or both.

Federal Medical Academies.—H. R. 691, introduced by Representative Dickstein, New York, and pending in the House Committee on Military Affairs. A bill for the creation of medical academies.

Comment.—This bill provides for the creation in each corps area of the United States a medical training school for the instruction of physicians for the armed forces and the United States Public Health Service. Each training school will have a minimum of 295 students to be selected by members of Congress. Candidates for admission must be at least twenty years of age and not over twenty-five years, and must be graduates of a college or university or possess the qualifications for entrance into a medical school in the state of which they are residents, must be citizens of the United States and of good moral character. The course of study to be given in such academies will be such as prescribed for the study of medicine by the American Medical Association and will include the subjects of anatomy, physiology, chemistry, hygiene, surgery, obstetrics and gynecology, pathology, bacteriology, and diagnosis.

On satisfactory completion of the course, candidates will be commissioned in the Army or Navy or in the United States Public Health Service, or any other service which may require their services. They must continue in such service for at least ten years unless the Secretary of War or the Secretary of the Navy, or the Surgeon General of the United States Public Health Service, as the case may be, shall certify that there is no further need for their services. The Secretary of War and the Secretary of Navy and the Surgeon General of the United States Public Health Service, the bill provides, must prescribe jointly such rules and regulations as may be necessary from time to time to make effective the provisions of the bill.

Water Pollution Control.—S. 186, introduced by Senator White, for himself and Senator Brewster, and H. R. 98, introduced by Representative Smith, all of Maine, and pending respectively in the Senate Committee on Commerce and the House Committee on Rivers and Harbors. A bill to create a Division of Water Pollution Control in the United States Public Health Service.

Comment.—These companion bills propose to establish in the United States Public Health Service a Division of Water Pollution Control. After conferring on the division authority to prepare comprehensive plans for eliminating or reducing the pollution and improving the sanitary conditions of the navigable waters of the United States and streams and tributaries thereof, these bills propose to authorize annual appropriations not to exceed $50,000,000 in any year for grants and loans to states, municipalities, or other public bodies which are discharging untreated or inadequately treated sewage or wastes into navigable waters of the United States or streams tributary thereto, for the construction of necessary treatment works in accordance with plans approved by the respective state health authority and the Surgeon General of the United States Public Health Service.

Control of Cancer.—H. J. Res. 12, introduced by Representative Keogh, New York, and pending in the House Committee on the Judiciary. A joint resolution to provide for the proper observance of the birthday of Madame Sklodowska Curie by proclaiming a national "War on Cancer Week." H. R. 661, introduced by Representative Rogers, Massachusetts, and pending in the House Committee on Interstate and Foreign Commerce. A bill to amend the Act approved August 5, 1937, entitled "An Act to provide for, foster, and aid in coordinating research relating to cancer; to establish the National Cancer Institute."

Comment.—The joint resolution would authorize the President of the United States to issue a proclamation designating the week of November 7 as the "National War on Cancer Week" in honor of the birthday of the world famous scientist, Madame Sklodowska Curie.

The Rogers bill would authorize a federal appropriation for the first fiscal year of its operation in the amount of $2,300,000 and for each fiscal year thereafter such sum as may be necessary to enable the United States Public Health Service to assist states, counties, cities or other political subdivisions to extend and improve measures through public and private institutions and organizations for the diagnosis, treatment and control of cancer. The bill contemplates the establishment of hospitals, diagnostic, clinic, and other facilities for the diagnosis and treatment of persons suffering from cancer or suspected of suffering from the disease. The sums to be appropriated will be allotted to such states as have plans for the control of cancer that have been approved by the Surgeon General of the United States Public Health Service. The bill provides that to the extent that facilities may be available, not to exceed 100 persons suspected of having or known to be suffering from cancer may be cared for in hospitals operated by the United States Public Health Service for purposes of diagnosis, treatment, and clinical study.

Trench-Fever Experiments; Influenza Epidemic.—H. R. 1391, introduced by Representative Lane, Massachusetts, and pending in the House Committee on Military Affairs. A bill to recognize the high public service rendered by soldiers who volunteered and served in trench-fever experiments in the American Expeditionary Forces. H. R. 655, introduced by Representative Ludlow, Indiana, and pending in the House Committee on Coinage, Weights, and Measures. A bill to provide suitable recognition for the voluntary services of civilian nurses with the Army during the influenza epidemic.

Comment.—The Lane bill proposes to authorize the President of the United States to issue an appropriate medal and ribbon to be awarded to designated members of the armed forces of the United States during the World War who, in the interest of humanity and science, acted as voluntary subjects for experimentations during the trench-fever investigations in France. The Ludlow bill would authorize the Secretary of the Treasury to cause to be struck a medal of appropriate design with suitable emblems, devices, and inscriptions to be determined by the Secretary of the Treasury, or a certificate suitable for framing, to commemorate the faithful nursing of the women who voluntarily offered their services and who served with the Army during the influenza epidemic of 1918.

Construction of Hospitals.—Two bills are pending, proposing to construct marine hospitals in Florida. H. R. 723, introduced by Representative Green, Florida, and pending in the House Committee on the Merchant Marine and Fisheries, proposes to authorize the construction of a marine hospital on a suitable site in Florida to be selected by the Federal Board of Hospitalization, at a cost of $1,550,000. H. R. 724, also introduced by Representative Green and pending in the House Committee on the Merchant Marine and Fisheries, proposes an appropriation of $2,500,000 for the purchase of a site and for the construction of a marine hospital in Jacksonville, Florida, for the accommodation of approximately 500 bed patients.

The construction of a marine hospital in or near Los Angeles, California, at a cost of not to exceed $2,600,000, is proposed by H. R. 828, introduced by Representative Costello, California, and pending in the House Committee on the Merchant Marine and Fisheries. This hospital, it is proposed, will accommodate approximately 300 bed patients.

Another bill, H. R. 493, introduced by Representative Angell, Oregon, and pending in the House Committee on the Territories, proposes an appropriation of $2,500,00 for the construction at Portland, Oregon, of a hospital for the care and treatment of the insane of the Territory of Alaska and of such other classes of persons who are insane or who may require mental treatment as

the President may designate for care and treatment in the hospital.

Four pending bills providing for the construction of veterans' hospitals. H. R. 361, introduced by Representative Magnuson, Washington, proposes an appropriation of $1,500,000 for the construction of a veterans' hospital in Seattle, Washington, with a capacity of at least 400 beds for the treatment of general medical and surgical cases. H. R. 1259, introduced by Representative Bradley, Michigan, would authorize an appropriation of $700,000 for the construction of a veterans' hospital in or near the city of Gladstone, Michigan, with a capacity of 150 beds. H. R. 1368, introduced by Representative Price, Florida, provides for an appropriation of $1,500,000 for the construction of a veterans' hospital in Alachua County, Florida, for the accommodation of approximately 500 bed patients. H. R. 667, introduced by Representative Rogers, Massachusetts, proposes to authorize such sums as may be necessary to enable the Administrator of Veterans' Affairs to provide additional hospital and outpatient dispensary facilities for persons entitled to hospitalization and medical treatment under the laws administered by the Veterans' Administration "to care for the rapidly increasing load of disabled war veterans and to enable the Veterans' Administration to care for its beneficiaries in Veterans' Administration facilities, rather than in contract temporary facilities and other institutions." All of the foregoing bills are pending in the House Committee on World War Veterans' Legislation.

Civilian War Benefits.—Bills are pending to provide benefits for civilians who sustain war injuries and for civilian defense workers who are injured while in the performance of duty or who contract a disease proximately caused by the performance of duty.

S. 450, introduced by Senator Pepper, Florida, and pending in the Senate Committee on Finance, proposes benefits for the injury, disability, death or enemy detention of civilians. It also provides for the prevention and relief of civilian distress arising out of the present war. Benefits will consist of monetary payments and the supplying of medical services. The Administrator of the Federal Security Agency may supply doctors' and nurses' services, drugs and other medicines, prosthetic and other appliances, hospitalization, and other reasonable services for treatment and care to the extent that he may prescribe in regulations. The actual cost of such benefits may be paid directly or by way of reimbursement to any person entitled to such benefits or may be paid to the person furnishing such benefits. The administrator may, under such regulations as he may prescribe, use any private facilities or such government facilities as may be available, for the treatment and care of any person entitled to such benefits.

In addition to the benefits to be made available for civilian defense workers, this bill would authorize benefits to any civilian suffering a personal injury proximately resulting from a war risk hazard, including any diseae proximately resulting from such personal injury. A "war-risk hazard" is defined to mean (1) the discharge of any missile (including liquids and gas) or the use of any weapon, explosive, or other noxious thing by an enemy or in combating an attack or an imagined attack by an enemy; (2) action of the enemy, including rebellion or insurrection against the United States or any of its allies; (3) the discharge or explosion of munitions intended for use in connection with the national war effort, except with respect to any employee of a manufacturer or processor of munitions during the manufacture, or processing thereof, or while stored on the premises of the manufacturer or processor; (4) the collision of vessels in convoy or the operation of vessels or aircraft without running lights or without other customary peacetime aids to navigation; or (5) the operation of vessels or aircraft in a zone of hostilities or engaged in war activities.

Another bill, H. R. 669, introduced by Representative Rolph, California, and pending in the House Committee on the Judiciary, provides that all air-raid wardens, auxiliary policemen and firemen, and other personnel engaged in civilian defense duty who sustain disease or injury while in the

lawful performance of such duty shall be entitled to hospitalization and medical care and compensation for such disease or injury as the President may by executive order prescribe.

A third bill, H. R. 899, introduced by Representative Kennedy, New York, and pending in the House Committee on the Judiciary, also provides compensation for injuries or death sustained by volunteer civilian defense workers in the line of duty, including services, appliances, supplies prescribed or recommended by duly qualified physicians which, in the opinion of the United States Employees' Compensation Commission, are likely to cure or to give relief or to reduce the degree or the period of disability or to aid in lessening the amount of the monthly compensation.

Service Pensions for Contract Surgeons of the Spanish-American War.—S. 72, introduced by Senator McNary, Oregon, and pending in the Senate Committee on Pensions. A bill for the relief of veterans of the Spanish-American War, including the Philippine Insurrection and Chinese Boxer Rebellion.

Comment.—This bill proposes to extend the benefits of an Act approved May 1, 1926 (providing service pensions for veterans of the Spanish-American War) to all persons who served ninety days, in foreign service, under the jurisdiction of the Quartermaster General or the Surgeon General of the United States Army, the Secretary of the Navy, or Marine Corps, during the Spanish-American War, including the Philippine Insurrection and the Chinese Boxer Rebellion. Contract surgeons of the Spanish-American War are not at the present time entitled to the benefits of the act proposed to be amended by this bill.

Medical and Hospital Care for the WAACS.—H. R. 665, introduced by Representative Rogers, Massachusetts, and pending in the House Committee on Military Affairs. A bill to provide medical and hospital treatment and domiciliary care for members of the Women's Army Auxiliary Corps on a parity with members of the Women's Reserve of the Navy.

Comment.—This bill provides that active duty as a member of the Women's Army Auxiliary Corps shall be considered as active military service for the purpose of medical and hospital treatment and domiciliary care under the laws administered by the Veterans' Administration.

Investigation of the Man Power Resources of the United States.—Senator Pepper, of Florida, by S. Res. 74, which has been ordered favorably reported by the Senate Committee on Education and Labor, proposes that that committee or a subcommittee thereof be authorized and directed to make a complete investigation of the man power resources of the United States with particular reference to housing, health, education, technical training, civilian mobilization, and morale.

Prescribing of Waters from Hot Springs National Park; Refund of Amounts Collected from Physicians.—S. 77, introduced by Senator Caraway, Arkansas, and pending in the Senate Committee on Claims. A bill to authorize the refund of certain amounts collected from physicians for the privilege of prescribing the waters from Hot Springs National Park.

Comment.—The bill directs the Secretary of the Treasury to determine the total amount collected by the government from physicians during the period, June 1, 1920, to June 30, 1931, for the privilege of prescribing the hot waters from the Hot Springs National Park and to refund to each physician the total amount so determined to have been collected from him. No physician, however, will be paid more than $660 and the total amount refunded may not exceed $50,330.

Medical Care for Fishermen.—H. R. 348, introduced by Delegate Dimond, Alaska, and pending in the House Committee on the Merchant Marine and Fisheries. A bill to extend the benefits of the United States Public Health Service to fishermen.

Comment.—This bill proposes to amend an act to promote economy and efficiency in the marine hospital service so as to extend the benefits of the United States Public Health Service to any person operating or employed on board certain vessels engaged in fishing operations.

Medical and Hospital Care for Civilians Under Jurisdiction of the Quartermaster General During Spanish-American War.—S. 463, introduced by Senator Downey, and H. R. 735, introduced by Representative Welch, both of California. Pending respectively in the Senate Committee on Military Affairs and the House Committee on World War Veterans' Legislation. Identical bills to confer on certain persons who served in a civilian capacity under the jurisdiction of the Quartermaster General during the war with Spain, the Philippine Insurrection, or the China Relief Expedition the benefits of hospitalization and the privileges of the soldiers' homes.

Comment.—These bills provide that all persons who served in a civilian capacity under the jurisdiction of the Quartermaster General during the war with Spain, the Philippine Insurrection, or the China Relief Expedition on vessels owned by the United States and engaged in the transportation of troops, supplies, ammunition, or materials of war, and who were discharged for disability incurred in such governmental service in line of duty, shall be granted entitlement to medical and hospital treatment and domiciliary care in Veterans' Administration facilities in the same manner and to the same extent as now or hereafter provided for veterans of any war.

Discrimination Against Blind Persons.—S. 137, introduced by Senator Davis, and H. R. 369, introduced by Representative Myers, both of Pennsylvania. Pending respectively in the Senate and House Committees on Civil Service. Bills to prevent discrimination against blind persons and persons with impaired visual acuity in the administration of civil service laws and rules.

Comment.—These bills provide that no person shall be discriminated against in any case because of his or her blindness or impaired visual acuity, in examination, appointment, reappointment, reinstatement, re-employment, promotion, transfer, retransfer, demotion, removal, or retirement in connection with the administration of the civil service laws and rules.

Education of Physically Handicapped Children.—H. R. 496, introduced by Representative Angell, Oregon, and pending in the House Committee on Education. A bill to provide for the education of all types of physically handicapped children.

Comment.—This bill proposes an appropriation for each fiscal year of $11,580,000 for the purpose of enabling each state to establish, extend, and improve services for educating physically handicapped children. The administration of the law, if the bill be enacted, will be under the jurisdiction of the United States Commissioner of Education and allotments will be made to those states that have submitted approved plans to the commissioner. The term "physically handicapped" is defined to mean all children who are crippled, blind, partially seeing, deaf, hard of hearing, defective in speech, cardiopathic, tuberculous, or otherwise physically handicapped, and who for their education require an expenditure of money in excess of the cost of educating physically normal children.

Vocational Rehabilitation. — The enactment of the "Vocational Rehabilitation Act of 1943" is proposed by companion bills S. 180, introduced by Senator LaFollette, Wisconsin, and pending in the Senate Committee on Education and Labor, and H. R. 699, introduced by Representative Barden, North Carolina, and pending in the House Committee on Education.

Comment.—This proposal provides for the vocational rehabilitation of (1) veterans disabled in the present war, (2) civilian defense workers, and (3) any other individual who has attained the age of sixteen years and who is disabled by reason of any physical defect or infirmity, whether congenital or acquired by accident, injury, or disease. The rehabilitation of veterans will be under the jurisdiction of the Administrator of Veterans' Affairs and the rehabilitation of other individuals covered by the measure will be under the supervision and direction of the Federal Security Administrator. Vocational rehabilitation will include any services necessary to render a disabled person fit to engage in a remunerative occupation, including physical restoration and repair, medical examination and

care, prosthetic and other devices, physical and occupational therapy, placement and other appropriate services. The existing federal vocational rehabilitation act, approved in 1920, will, if the pending proposal be enacted, be amended in various respects to provide for cooperative plans for rehabilitation training.

There will be created in the Federal Security Agency a Rehabilitation Service under the management of a director of rehabilitation appointed by the Federal Security Administrator. Increased federal funds will be made available for allotment to the states which have submitted plans for rehabilitation programs approved by the Federal Security Administrator. In providing rehabilitation training for disabled veterans and for war disabled civilians the Administrator of Veterans' Affairs and the Federal Security Administrator, respectively, must, as far as practicable, utilize training provided under approved state plans. The disabled veterans and war disabled civilians to be trained under such plans will be certified as such to the state board through or by the Federal Security Administrator, or his designate. Any other individual found by the Federal Security Administrator to need training will be certified by him for such training to the state of his residence, if such state makes such training available under a plan approved by the administrator. With respect to the necessary cost of training disabled veterans or war disabled civilians, the pending legislation contemplates that the federal government shall assume the full cost. With respect to the rehabilitation training of other individuals certified to states, two-thirds of the necessary cost will be assumed by the federal government.

Another bill, H. R. 789, introduced by Representative Tolan, California, and pending in the House Committee on Education, proposes a federal appropriation of $3,100,000 for each fiscal year for grants to the states for assistance in the rehabilitation of disabled persons incapacitated for normal employment. The program proposed by this bill would be under the supervision and direction of the Commissioner of Education and state plans would have to be submitted to that federal official for approval.

Other pending bills relate to the vocational rehabilitation only of veterans. S. 187, introduced by Senator Walsh, Massachusetts, and pending in the Senate Committee on Finance, provides for the vocational rehabilitation and the return to civil employment of certain persons disabled under circumstances entitling them after discharge or separation from the military or naval forces of the United States to a pension or retirement pay. Four bills propose to direct the Veterans' Administration to provide vocational rehabilitation and assistance in securing suitable employment for service-connected disabled veterans in need thereof: H. R. 739, introduced by Representative Van Zandt, Pennsylvania, and H. R. 801, introduced by Representative Rankin, Mississippi, companion bills that refer to the rehabilitation of persons in active military service on or after December 7, 1941, and prior to the termination of hostilities in the present war; H. R. 1189, introduced by Representative Rogers, Massachusetts, H. R. 1402, introduced by Representative Sparkman, Alabama, and H. R. 1458, introduced by Representative Cannon, Florida, companion bills that include any person who served in the active military or naval forces of the United States irrespective of the time of service. All of these bills are pending in the House Committee on World War Veterans' Legislation.

Social Security Act Amendments. — S. Con. Res. 4, submitted by Senator Wiley, Wisconsin, proposes to establish a Joint Committee on Social Security to be composed of designated members of the Committee on Finance of the Senate and of the House Committee on Ways and Means. This resolution, pending in the Senate Committee on Finance, imposes a duty on the Joint Committee to make studies with respect to the need for and advisability of modification or enlargement of the present social security program and to consider proposals submitted to Congress in connection therewith.

S. 281, introduced by Senator Green, Rhode Island, and pending in the Senate

Committee on Finance, is a bill to amend and extend the provisions of the Social Security Act. It will extend the coverage of old age and survivors' insurance, will provide insurance benefits for workers permanently and totally disabled, will provide hospitalization benefits, special federal aid to states for public assistance, and will effect many other changes in the provisions of the existing law.

In addition to providing for cash disability benefits, the bill proposes to authorize the Social Security Board to "make provisions" for furnishing of medical, surgical, institutional, rehabilitation, or other services to individuals entitled to disability benefits if such services will aid in enabling the individuals to return to gainful work. Such services, the bill provides, will be furnished by qualified practitioners and through governmental and nongovernmental hospitals and other institutions qualified to furnish such services.

Individuals who are hospitalized, and who comply with certain other requirements stated in the bill, will be entitled to a hospital benefit of not less than three dollars a day and not more than six dollars, as determined by the Social Security Board after consultation with a National Advisory Hospital Benefits Council to be appointed by the Social Security Board. Hospitalization must be in an institution accredited by the board. An institution, to be accredited, must provide at least bed and board, general nursing care, the use of an operating or of a delivery room, ordinary medications and dressings, laboratory and X-ray services and other customary hospital care and services and must be found by the board to afford professional service, personnel, and equipment adequate to promote the health and safety of individuals customarily hospitalized in such institution and to have procedures for the making of such reports and certifications as the board may from time to time require. In lieu of the payment of the hospital benefit directly to the individual, the Social Security Board may make arrangements with accredited hospitals for the payment of the reasonable cost of hospital service.

H. R. 317, introduced by Representative Fitzpatrick, New York, and pending in the House Committee on Ways and Means, proposes to amend the Social Security Act so as to provide for the payment of benefits to individuals who are permanently and totally disabled. This bill apparently proposes only monetary benefits.

H. R. 370, introduced by Representative Myers, Pennsylvania, and pending in the House Committee on Ways and Means, proposes to extend the federal old age benefit provisions of the Social Security Act to male or female registered, graduate, undergraduate or practical nurses in respect of their employment outside of religious, charitable, and other nonprofit institutions.

H. R. 375 and H. R. 376, introduced by Representative Voorhis, California, and pending in the House Committee on Ways and Means, proposes to amend the Social Security Act so as to confer on each state the exclusive right to adopt its own interpretation of the phrases "needy individuals who are blind," and "blind individuals who are needy," as used in the Act. The purpose of this proposal is to encourage the states to make more adequate provision for blind persons.

H. R. 867, introduced by Representative Angell, Oregon, H. R. 788, introduced by Representative Tolan, California, and H. R. 1286, introduced by Representative Izac, California, all pending in the House Committee on Ways and Means, propose benefits for persons physically disabled to such a degree that they are unable to engage in a gainful occupation.

H. R. 867, introduced by Representative Knutson, Minnesota, and pending in the House Committee on Ways and Means, proposes to exempt from the Social Security Act associations furnishing medical care or hospitalization to members or their dependents, if no part of the net earnings of the association inures to the benefit of any private shareholder or individual and if seventy-five per cent or more of the income consists of amounts collected from members or contributed by the employer for the sole purpose of making such payments and meeting expenses.

H. R. 868, introduced by Representative Knutson, Minnesota, and pending in the House Committee on Ways and Means, would add a new title to the Social Security Act providing grants to states for aid to the physically handicapped. A federal appropriation of $10,000,000 for the first fiscal year of the operation of the proposal would be authorized and for each fiscal year thereafter such sum as is necessary to carry out the purposes of the law.

Additional Benefits for Veterans.—The following Senate bills are pending in the Senate Committee on Finance and the House bills in the House Committee on World War Veterans' Legislation:

S. 227, introduced by Senator Clark, Missouri, defines the term misconduct as used in veterans' regulations in relation to compensation and pension, as limited to felonious misconduct; S. 230, introduced by Senator Clark, Missouri, to amend Veterans' Regulation Numbered 10 to grant hospitalization, domiciliary care and burial benefits to any officer, enlisted man, member of the Army Nurse Corps (female) or Navy Nurse Corps (female) employed in the active military or naval service of the United States on or after December 7, 1941, and before the termination of the present war;

H. R. 782, introduced by Representative Voorhis, California, a bill to establish more equitable procedure governing the determination of service connection of diseases or injuries alleged to have been incurred in or aggravated by active service in a war, campaign, or expedition; H. R. 783, introduced by Senator Voorhis, California, a bill to grant permanent and total disability ratings to veterans suffering from severe industrial inadaptability as a result of war service; H. R. 887, introduced by Representative Van Zandt, Pennsylvania, a bill to provide the same privileges for hospitalization and domiciliary care for campaign and expedition veterans as are now applicable to World War veterans; H. R. 889, introduced by Representative Van Zandt, Pennsylvania, a bill to require the Administrator of Veterans' Affairs to amend the rating schedules so as to provide total ratings for the most severe functional nervous diseases or psychoneurotic states; H. R. 658, introduced by Representative Rogers, Massachusetts, a bill to provide prosthetic appliances to veterans suffering from nonservice connected disabilities; H. R. 891, introduced by Representative Voorhis, California, a bill to grant permanent and total disability ratings to veterans suffering from severe industrial inadaptability as a result of war service;

H. R. 911, introduced by Representative Rees, Kansas, a bill to provide that veterans needing prosthetic appliances will not thereby be deprived of opportunity to take civil service examinations; H. R. 913, introduced by Representative Rankin, Mississippi, a bill to extend the privilege of hospitalization to veterans of World War II for the treatment of nonservice connected disabilities and to provide for preference of hospitalization to those veterans who were discharged by reason of disability and to those entitled to benefits for service connected disabilities; H. R. 980, introduced by Representative Bates, Kentucky, a bill to provide that the Veterans' Administration shall not, in the absence of fraud or clear and unmistakable error, reduce any permanent disability rating; H. R. 994, introduced by Representative Cunningham, Iowa, a bill to amend Title III of the World War Veterans' Act of 1924 so as to provide that without prejudice to any other cause of disability, the permanent loss of the use of both feet, or of both hands, or of both eyes, or of one foot and one hand, or of one foot and one eye, or of one hand and one eye, or the loss of hearing of both ears, or the organic loss of speech, or becoming permanently helpless or permanently bedridden, shall be deemed total permanent disability for insurance purposes;

H. R. 121, introduced by Representative Cannon, Missouri, provides that all public laws granting medical and hospital treatment, domiciliary care, compensation and other allowances, pensions, disability allowance and retirement pay to veterans that were repealed by the Economy Act of 1933 shall be re-enacted; H. R. 790, introduced by Representative Rankin, Mississippi, provides that all compensation, pension, and

hospital privileges granted to veterans of the first World War, their widows, and dependents, by the World War Veterans' Act of 1924, as amended, and as reinstated by Public Law No. 141, Seventy-Third Congress, March 28, 1934, and by Public Law No. 2, Seventy-Third Congress, March 20, 1933, as amended, shall be extended to veterans of the present war, their widows and dependents; H. R. 728, introduced by Representative Green, Florida, a bill to authorize the Administrator of Veterans' Affairs to furnish necessary dental care and treatment, including necessary dental appliances and transportation to and from a Veterans' Administration facility, to veterans of any war, including the Indian wars, the Boxer Rebellion, and the Philippine Insurrection, who were not dishonorably discharged and who are not entitled to similar benefits under any law or veterans' regulation now extant;

H. R. 1029, introduced by Representative Rogers, Massachusetts, a bill to provide permanent and total disability rating in active pulmonary tuberculosis cases; H. R. 1013, introduced by request by Representative Lesinski, Michigan, a bill to grant permanent and total disability ratings to disabled men of the Army, Navy, Marine Corps and Coast Guard suffering from severe industrial inadaptability as a result of active service in the Army, Navy, Marine Corps or the Coast Guard; H. R. 1453, introduced by Representative Case, South Dakota, a bill to provide that veterans of the present war suffering with tuberculous or neuropsychiatric ailments shall receive the same domiciliary or hospital care as veterans of the World War.

Identification Buttons for Certain Rejectees.—H. R. 1298, introduced by Representative Norrell, Arkansas, and pending in the House Committee on Military Affairs. This bill undertakes to provide identification buttons for persons deferred or discharged from or rejected for military or naval service on account of physical defects not due to personal misconduct.

J. W. Holloway, Jr.

CANCER OF THE PROSTATE*

BURNETT W. WRIGHT, M.D., Nashville

Great interest has been aroused recently by our new knowledge concerning the hormonal factor in the genesis of cancer of the prostate so much so that it seems advisable to clarify certain points about which there may be some misunderstanding, and to review briefly what is known and accepted as proper methods of treating patients with this disease. Our present-day conception of this treatment is based on certain well-established facts, some of which have been known for a long time and others that are quite new. Perhaps the most important of these is that in its incipiency, and while it is still confined within the capsule of the prostate, it is *surgically curable*. The next of importance is the fact that the majority of malignancies (seventy per cent), and certainly those that can be recognized earliest, begin in the posterior lamella, where hyperplasia never occurs, and the direction of extension by continuity is most often upward toward the seminal vesicles. Suprapubic enucleations and transurethral resections, therefore, which do not remove the posterior lobe, the prostatic capsule, and the vesicles, will not cure this type of cancer. A small percentage of hyperplasias undergo malignant degeneration and some cancers begin in groups of glands other than in the posterior plate—and these, when centrally located, have occasionally been enucleated suprapubically, oftentimes entirely unsuspected by the surgeon or patient. But the usual cancer that is first felt as a nodule beneath the rectal mucosa in the posterior lamella can only be cured by the radical removal of the gland, as first described by Doctor Young.

Another important fact is that normal prostatic tissue contains both acid and alkaline phosphatase from birth. The amount of acid phosphatase increases at puberty so that a normal adult has a large amount in the epithelium of his gland. Gutman and Gutman reported in 1938 the presence of this enzyme in the metastatic bone lesions of prostatic cancer and the increase above normal in the serum acid phosphatase of the blood. That this could be further increased by the administration of male sex hormones (androgens) and lowered by the female sex hormones (estrogens) was reported by Huggins of Chicago in 1941. Prior to this time, Arbor Munger of Lincoln, Nebraska, who had been treating cancer of the prostate with high voltage X-ray, suggested that some of the improvement he noted was probably due to incidental radiation of the testes and came to the identical conclusion later expressed by Huggins and on which our present concept of hormonal therapy is based, and that is, that the malignant epithelium in prostatic cancer is influenced by the sex hormones in the same manner as normal prostatic epithelium. Munger continued to radiate the testes, while Huggins castrated his patients surgically, both with the same purpose, that of diminishing the androgens and causing a recession in the cellular activity of the cancer. The majority of patients showed striking clinical improvement for both of these investigators, who reported their findings at the same meeting of the American Urological Association at Colorado Springs in 1941. The metastatic lesions, as well as the primary growth, often receded. A number failed to show improvement and it became apparent that these were cancers made up of undifferentiated cells with no attempt at reduplication of acini, such as occurred in the adenocarcinomata with adult type epithelium. In many instances complete relief from pain occurred within forty-eight hours after orchiectomy or radiation and many examples of complete disappearance of X-ray evidence of bony metastases have been observed. Some patients have been improved for a short time only and then have developed renewed activity in the malignant cells and have gone on to a cancer death. The administration of estrogenic substances, of which stilbestrol is the one commonly used, has been employed both alone and in combination with

*Read April 9, 1943, at the Nashville Surgical Society.

orchiectomy or X-ray castration by many workers with similar results.

It is still too early to say that hormonal therapy has cured a case of carcinoma of the prostate. It may be that eventually this type of treatment may render cancer of the prostate (and perhaps other varieties) so static as to no longer be lethal, but that day has not yet arrived. Certainly a great deal of comfort and some apparent prolongation of life has resulted from this new era in the management of prostatic malignancy. We believe that it should not be depended on to cure an early case or be substituted for the radical operation when complete removal seems possible.

The frequency of this disease makes it imperative to attach importance to every nodule or induration found in the prostate of a man past fifty years of age. With the increasing span of life it has become one of the most usual forms of malignancy, occurring three times as often in the prostate as in any other internal organ in man (Young). Rich and Moore in 1935 reported independent autopsy studies that strikingly emphasized the frequency of the disease. In 292 consecutive autopsies on males over fifty years of age dying from a variety of causes, Rich found cancer of the prostate in forty-one (fourteen per cent). Moore (1935) in 375 autopsies found sixty-three (16.7 per cent) cancers of the prostate.

The diagnosis of cancer of the prostate must be comprehensive if the best possible treatment is to be given. It must take into consideration, first, the extent of the lesion; second, the degree of obstruction; third, the presence or absence of demonstrable metastases; and fourth, information concerning the upper urinary tract. A determination of the serum acid phosphatase should be made before hormone therapy is begun. Belt considers finding more than four King-Armstrong units a contraindication to radical surgery, as it probably signifies that metastases have occurred, even if not demonstrable.

The first duty confronting the examiner is to determine the type of treatment to be recommended and this will be either curative or palliative. The only method available for cure is a radical removal of the prostate. The following paragraph from an article in the *Journal of Urology* for March, 1942, by Lloyd G. Lewis of the Brady Urological Institute, expresses our views precisely:

"I firmly believe that the radical removal of the prostate as described by Doctor Young is the only method at our disposal by which carcinoma of the prostate can be cured. There are signs that the urological profession has recognized this fact, since the radical operation is being performed in most of the great medical centers throughout the country. It has taken years to jolt urologists out of their complacency in the treatment of prostatic malignancy. The fact that the patient is usually over sixty years of age, is not in too good general physical condition, his life expectancy is not great, has been too literally interpreted. Palliative measures are not tolerated in other fields, why should they be in operable prostatic cancer? Palliative measures are only to be tolerated when cure is out of the question. . . . The radical operation has been done in 115 cases and we have follow-up records on every patient except three. A careful analysis of the ultimate results shows that almost fifty per cent of the patients lived or are living without recurrence five or more years after leaving the hospital."

Reed M. Nesbit in his new book expresses himself as follows:

"In the light of modern developments in the management of prostatic malignancy, the rational therapeutic approach to cases in which diagnosis of cancer is made should depend upon the size and extent of the primary lesion at the time it is discovered. It is the author's opinion that when the lesion is small, is confined within the prostatic capsule, and does not show evidence of local or remote metastases, perineal exposure of the gland is clearly indicated. At the time of operation, material can be obtained for biopsy and frozen section analysis can immediately be made. If localized carcinoma is found, radical perineal prostatectomy should be performed."

Many similar statements are in the litera-

ture today for all who will to read. Sufficiently large series of patients operated by the so-called radical procedure are reported by such men as George Gilbert Smith, Hinman, Belt, Young, Lewis, Hamm, and others to convince one of the need and efficacy and relative safety of the operation. The operation presupposes special training and knowledge of the anatomy of the male perineum.

Patients who are to receive palliative treatment because of local or remote metastases should have bilateral orchiectomy and estrogenic hormone therapy. Transurethral resection for the relief of obstruction is preferable to suprapubic cystotomy if the resectoscope can be introduced. It may have to be repeated if the cancer continues to invade the prostatic urethra. If unable to pass the resectoscope, partial perineal prostatectomy is advisable for relief of obstruction. If cancer cells are found in the routine examination of tissue removed by transurethral resection for a supposedly benign adenoma, the patient is usually inoperable, so far as the radical operation is concerned, and should have an immediate orchiectomy or stilbestrol therapy or both.

In the past four and one-half years ten patients have been operated, for whom we believed it possible to completely extirpate the cancer. In one, the last operated, the nodule was found to be a tense cyst. Nine were proved to have carcinoma by microscopical examination of tissue removed in the manner described above. There was no operative mortality. All left the hospital alive. The youngest was forty-seven years of age and the eldest was sixty-four. Four are alive and show no recurrences; one, three years after operation; one, one year and two months after operation; one, two years and three months after operation; and one, nine months after operation. One is alive four years after operation and is said by his local doctor to have a lump where the anastamosis was made between the urethra and bladder, which is probably a recurrence. One died of pneumonia one year after operation without recurrence of his malignancy. One died two years and seven months after surgery with apoplexy without recurrence of the cancer. Two are dead from cancer; one, eight months after surgery, who had local extension found at operation; and one, twenty-one months after surgery, in whom the left seminal vesicle showed cancer to the upper tip.

Evidence of metastasis as shown by X-rays, or direct extension of the growth outside the capsule of the gland, or down into the membranous urethra, as revealed by rectal palpation, or invasion of the trigone seen with the cystoscope, and marked debility, are contraindications to the radical operation. Incontinence of urine has not occurred. The four patients who are alive have good control and one has retained his sexual power.

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in four categories as follows: first, those who have been commissioned and are on duty; second, those who have been commissioned and are awaiting orders; third, those who have applied for a commission and are awaiting action by the proper authorities; fourth, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Chester	Hunter M. Steadman	Henderson
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Newton A. Cannon	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Dan C. Gary	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James W. Harrison	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Nathan P. Horner	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville
Davidson	Jas. A. Loveless	Nashville

*Deceased.

Davidson—J. P. Lowe—Nashville
Davidson—Sol Lowenstein—Nashville
Davidson—Jas. R. McMillan—Nashville
Davidson—Robt. H. Magruder—Nashville
Davidson—C. G. deGutierrez-Mahoney—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Melvin M. Simmons—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Hugh Amos—Old Hickory
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—James O. Barker—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Greene—John G. Zirkle—Greeneville
Hamblen—Robert A. Purvis—Morristown
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Walter Buckner, II.—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—Carl A. Hartung—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—E. F. McCall—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar
Hardeman—Wiley D. Lewis—Bolivar
Hardeman—M. J. Stewart—Whiteville

Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville
Hawkins—A. S. Yates—Rogersville
Haywood—Robert C. Berson—Brownsville
Henderson—R. M. Conger—Lexington
Henry—J. W. Didcoct—Paris
Henry—Arthur C. Dunlap—Paris
Henry—J. C. McKissick—Paris
Henry—Geo. H. McSwain—Paris
Hickman—Wm. L. Phillips—Centerville
Jefferson—William B. Malcolm—Dandridge
Jefferson—Frank L. Milligan—Jefferson City
Knox—A. J. Weber—Bearden
Knox—Malcolm F. Cobb—Concord
Knox—B. B. Mitchell—Fountain City
Knox—Charles M. Armstrong—Knoxville
Knox—Spencer Y. Bell—Knoxville
Knox—R. G. Brashear—Knoxville
Knox—A. M. Carr—Knoxville
Knox—E. E. Carrier—Knoxville
Knox—Jack Chesney—Knoxville
Knox—L. W. Chesney—Knoxville
Knox—H. S. Christian—Knoxville
Knox—H. E. Christenberry, Jr.—Knoxville
Knox—Sam M. Cooper—Knoxville
Knox—Sam P. Davidson—Knoxville
Knox—T. P. Day—Knoxville
Knox—W. A. DeSautelle—Knoxville
Knox—T. B. Drinnen—Knoxville
Knox—Richard N. Duffey—Knoxville
Knox—J. Gilbert Eblen—Knoxville
Knox—Jas. B. Ely—Knoxville
Knox—Frank Faulkner—Knoxville
Knox—Peter J. Flippin—Knoxville
Knox—Glenn D. Grubb—Knoxville
Knox—Geo. G. Henson—Knoxville
Knox—Oliver W. Hill, Jr.—Knoxville
Knox—C. R. Huffman—Knoxville
Knox—C. E. Irwin—Knoxville
Knox—Willard J. Irwin—Knoxville
Knox—H. H. Jenkins—Knoxville
Knox—J. O. Kennedy—Knoxville
Knox—A. H. Lancaster—Knoxville
Knox—R. P. Layman—Knoxville
Knox—J. H. Lesher—Knoxville
Knox—J. D. McCullough—Knoxville
Knox—Wm. T. McPeake—Knoxville
Knox—J. L. Montgomery—Knoxville
Knox—Wm. S. Muse—Knoxville
Knox—E. P. Nicely—Knoxville
Knox—Frank O. Nichols—Knoxville
Knox—Ralph Nichols—Knoxville
Knox—B. M. Overholt—Knoxville
Knox—Jos. B. Parker, Jr.—Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr.—Knoxville
Knox—Herschel Penn—Knoxville
Knox—Jarrell Penn—Knoxville
Knox—H. L. Pope—Knoxville
Knox—John S. Powers, Jr.—Knoxville
Knox—John A. Range—Knoxville
Knox—Jos. L. Raulston, Jr.—Knoxville
Knox—Hugh C. Reaves—Knoxville
Knox—J. W. Riggs—Knoxville
Knox—J. S. Ruffin, Jr.—Knoxville
Knox—J. H. Saffold—Knoxville
Knox—A. B. Shipley—Knoxville
Knox—P. D. Smith—Knoxville
Knox—J. M. Stockman—Knoxville
Knox—Geo. W. Tharp—Knoxville
Knox—Phil Thomas—Knoxville
Knox—Fred West—Knoxville
Knox—Jacob M. Williams—Knoxville
Knox—Leon J. Willien—Knoxville
Lake—W. T. Rainey—Tiptonville
Lauderdale—J. H. Nunn—Ripley
Lauderdale—W. Val Sanford—Ripley
Lawrence—L. C. Harris, Jr.—Lawrenceburg
Lincoln—R. E. McCown—Fayetteville
Lincoln—Ben H. Marshall—Fayetteville
Lincoln—M. C. Woodfin—Fayetteville
Lincoln—E. S. Leek—Petersburg
Loudon—F. E. Hufstedler—Lenoir City
Loudon—Avery Leeper—Lenoir City
McMinn—S. B. McClary, Jr.—Etowah
McMinn—A. W. Reeser—Athens
McMinn—Lester H. Shields—Athens
McNairy—T. N. Humphrey—Selmer
McNairy—H. O. Mason—Adamsville
Madison—L. D. Farragut—Bemis
Madison—Roderick C. Webb—Bemis
Madison—Everett Archer—Jackson
Madison—C. H. Brown—Jackson
Madison—W. B. Camp—Jackson
Madison—J. E. Douglass—Jackson
Madison—R. S. Hellmann—Jackson
Madison—Frank A. Moore—Jackson
Madison—Roy M. Neudecker—Jackson
Madison—Carl Rogers—Jackson
Madison—A. R. Taylor—Jackson
Madison—J. R. Thompson, Jr.—Jackson
Madison—P. E. Wylie—Jackson
Madison—Stevens Byars—Mercer
Marshall—A. L. Cooper—Chapel Hill
Marshall—H. B. Disharoon—Lewisburg
Maury—W. N. Cook—Columbia
Maury—Robin Lyles—Columbia
Maury—J. B. Miller—Columbia
Monroe—D. F. Heuer, Jr.—Sweetwater
Monroe—R. M. Price—Sweetwater
Montgomery—J. A. Culbertson—Clarksville
Montgomery—John H. Ledbetter, Jr.—Clarksville
Montgomery—Phillip Lyley—Clarksville
Morgan—R. A. Steadman—Wartburg
Obion—Hal E. Bennett—Troy
Obion—Edward W. Barksdull—Union City
Obion—R. M. Darnall—Union City
Obion—R. G. Latimer, Jr.—Union City
Overton—H. B. Nevans—Livingston
Pickett—Floyd B. Hay—Byrdstown
Polk—Henry S. Harris—Benton
Polk—J. H. Lillard—Benton
Polk—H. H. Hyatt—Copperhill
Putnam—H. H. Taylor—Cookeville
Putnam—R. L. Akin—Monterey
Roane—L. A. Killeffer—Harriman
Roane—G. D. Schuessler—Oliver Springs
Roane—F. Davis Owings—Rockwood
Robertson—J. C. Lunderman—Orlinda

Robertson—W. P. Stone—Springfield
Rutherford—Harvey W. Carter—Murfreesboro
Rutherford—Thos. G. Gordon—Murfreesboro
Sevier—John A. Conroy—Newton, Mass.
Sevier—Charles E. Pack, Jr.—Sevierville
Sevier—R. M. Perry—Sevierville
Shelby—J. H. Adler—Memphis
Shelby—R. Roger Anderson—Memphis
Shelby—Chas. G. Andrews—Memphis
Shelby—J. M. Aste—Memphis
Shelby—Edward R. Atkinson—Memphis
Shelby—Chas H. Avent—Memphis
Shelby—J. C. Ayers—Memphis
Shelby—James M. Bethea—Memphis
Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—R. F. Bonner—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—James M. Brockman—Memphis
Shelby—W. T. Braun, Jr.—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—James H. Collins—Memphis
Shelby—John Kerr Crawford—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—W. F. Dobyns—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Harold Feinstein—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—Paul Hill Goodman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—James E. Holmes—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Wm. E. Hurt—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingram—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Richard King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Chas. K. Lewis—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Wm. M. Lovejoy—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Geo. E. Paullus, Jr.—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—G. S. Plog—Memphis
Shelby—Ira F. Porter—Memphis
Shelby—Hugh R. Raines—Memphis
Shelby—S. L. Raines—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Chas. G. Robinson—Memphis

Shelby—Wm. A. Runkle—Memphis
Shelby—P. B. Russell, Jr.—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—Bryant S. Swindoll—Memphis
Shelby—B. S. Taley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis
Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—Jack Viscofsky—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis
Shelby—J. E. Watson, Jr.—Memphis
Shelby—Julian K. Welch, Jr.—Memphis
Shelby—S. I. Wener—Memphis
Shelby—Horace G. Williams—Memphis
Shelby—W. L. Wilhelm—Memphis
Shelby—Harwell Wilson—Memphis
Shelby—John M. Wilson—Memphis
Shelby—J. E. Wilson—Memphis
Shelby—C. Frank Yates—Memphis
Sullivan—J. W. Erwin—Blountville
Sullivan—Tom Kuhnert—Bristol
Sullivan—John Marcy—Bristol
Sullivan—G. W. McCall—Bristol
Sullivan—B. W. Mongle—Bristol
Sullivan—L. B. Snapp, II—Bristol
Sullivan—F. L. Alloway—Kingsport
Sullivan—R. W. Asthalter—Kingsport
Sullivan—H. O. Bolling—Kingsport
Sullivan—R. H. Brown—Kingsport
Sullivan—H. S. Burem—Kingsport
Sullivan—W. C. Carreras—Kingsport
Sullivan—P. W. Cox—Kingsport
Sullivan—John B. Hamilton—Kingsport
Sullivan—R. B. Howard—Kingsport
Sullivan—K. R. Kiesau—Kingsport
Sullivan—M. D. Massengill, Jr.—Kingsport
Sullivan—J. F. Morton—Kingsport
Sullivan—R. G. Nichols—Kingsport
Sullivan—W. B. Payne—Kingsport
Sullivan—Raymond A. Steadman—Kingsport
Sumner—P. M. Huggins—Gallatin
Sumner—Benjamin A. Warren—Gallatin
Tipton—N. L. Hyatt—Covington
Tipton—J. S. Ruffin, Jr.—Covington
Tipton—O. J. Swisher—Covington
Unicoi—R. H. Harvey—Erwin
Unicoi—W. C. Humbert—Erwin
Unicoi—H. L. Monroe—Erwin
Union—Norman H. Rucker—Luttrell
Washington—C. M. Creech—Johnson City
Washington—H. B. Fuqua—Johnson City
Washington—C. S. Gresham—Johnson City
Washington—W. D. Hankins—Johnson City
Washington—Harry Myron, Jr.—Johnson City
Washington—W. L. Poole—Johnson City
Washington—W. G. Preas—Johnson City
Washington—Hugh F. Swingle—Johnson City
Washington—Charles P. Wofford—Johnson City
Washington—H. B. Cupp—Mountain Home
Washington—John Busey—Mountain Home
Washington—Ernest Marcus—Mountain Home
Weakley—Paul W. Wilson—Dresden
Weakley—Madison H. Buckley—Martin
Williamson—W. F. Roth, Jr.—Franklin
Wilson—O. R. Hill—Lebanon
Wilson—James McFarland, Jr.—Lebanon
Wilson—W. K. Tilley—Lebanon

DOCTORS WHO HAVE APPLIED AND WHOSE COMMISSIONS ARE PENDING

Anderson—J. L. Sergeant—Lake City
Campbell—C. E. Ausmus—Jellico
Davidson—S. W. Ballard—Nashville
Davidson—Theodore W. Davis—Nashville
Davidson—T. Emerson Simpkins—Nashville
Knox—E. M. Eddington—Knoxville
Knox—Wiley R. Smith—Knoxville
Knox—John Szewczyk—Knoxville
Lincoln—James V. McRady—Fayetteville
Shelby—M. W. Adams—Memphis
Shelby—L. L. Carter—Memphis
Shelby—Clyde V. Croswell—Memphis

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff—Clinton
Cannon—Carl E. Adams—Woodbury
Anderson—A. J. Butler—Clinton
Carter—John L. Chesnut—Elizabethton
Carter—E. T. Pearson—Elizabethton
Coffee—Wm. M. Minnis—Manchester
Davidson—E. E. Anderson—Donelson
Davidson—R. Z. Linney—Madison
Davidson—Joe E. Sutherland—Madison College
Davidson—J. J. Ashby—Nashville
Davidson—Edward H. Barksdale—Nashville
Davidson—Lynch D. Bennett—Nashville
Davidson—Randolph A. Cate—Nashville
Davidson—David W. Hailey—Nashville
Davidson—Andrew N. Hollabaugh—Nashville
Davidson—Thos. M. Jordan—Nashville
Davidson—J. K. Kaufman—Nashville
Davidson—Carl Kirchmaier—Nashville
Davidson—N. B. Morris—Nashville
Davidson—James C. Overall—Nashville
Davidson—James N. Owens—Nashville
Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville
Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—Trimble Sharber—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Herman Spitz—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville

Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Chas. W. Davis—Humboldt
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—John A. Brabson—Greeneville
Greene—Rae B. Gibson—Greeneville
Hamblen—M. J. Bellaire—Morristown
Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—H. P. Hewitt—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—John Moore—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Morgan—Wm. E. Gallion—Oakdale
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Sevier—J. Myron Mittleman—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—H. E. Atherton—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—James T. Bridges—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Roland H. Myers—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Donald W. Oelker—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Leo F. Pierotti—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—R. O. Rychener—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—O. B. Stegall—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Shelby—John E. Whiteleather—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Washington—G. V. Stanton—Limestone
Wayne—Dexter L. Woods—Waynesboro
Weakley—R. W. Brandon, Jr.—Greenfield
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

JUNE, 1943

EDITORIAL

Some Recommendations of the National Resources Planning Board

The following excerpts from the report of the National Resources Planning Board, submitted to the Congress by the President on March 10, 1943, is incorporated in this editorial because it should be of interest to every member of the medical profession:

"Report number one suggests that 'we must seek not merely to avoid the loss through ill-health, accidents, and premature death of our most valuable national resource and to eliminate the unnecessary costs of maintaining those who are rendered incapable by reason of previous neglect, but we must also see that it is possible for all our people to enjoy a state of buoyant health and vigor.' To achieve these objectives, the report recommends action along the following lines:

"a. *Health measures* and adequate nutrition in order to eliminate all diseases, disabilities, and premature deaths which are preventable in the light of existing knowledge through:

"(1) The development of adequate public health services and facilities in every county within the country.

"(2) The development of health program for mothers and children, insuring remedial treatment as well as diagnosis and advisory services; maternal and child health clinics; and health services in the schools.

"(3) Protection of workers whether in the factory or on the farm from unnecessary accidents, controllable occupational diseases, and undue fatigue.

"(4) Continued support from public and private funds for public health research and education with a view to the progressive expansion of the frontiers of control over health hazards.

"(5) Continued support for public and private agencies engaged in the dissemination of knowledge of sound nutritional principles and practices. Especial attention should be devoted to demonstration work in the schools, the factories, and farming areas.

"b. Assurance of adequate medical and health care for all, regardless of place of residence or income status, and on a basis that is consistent with the self-respect of the recipient through:

"(1) Federal appropriations to aid states and localities in developing a system of regional and local hospitals and health centers covering all parts of the country.

"(2) Assurance of an adequate and well-distributed supply of physicians, dentists, nurses, and other medical personnel.

"(3) Expansion and improvement of public medical care for needy persons through larger appropriations and through increased cooperation by and with the medical and dental professions.

"(4) Immediate action by government in cooperation with the medical profession to formulate plans which enable the patient to budget expenses over a reasonable period and to contribute toward the costs of care according to his ability, and which at the same time assure to medical personnel a decent livelihood commensurate with the high costs of their professional training."

Osteopaths as Commissioned Medical Officers in the Navy

The following is an excerpt from a hearing on the question of commissioning os-

teopaths as medical officers in the United States Navy:

"Osteopaths as Commissioned Medical Officers in the Navy.—As reported in FLB-22, the Second Supplemental National Defense Appropriation Act of 1943, approved by the President, October 26, 1942, contained a provision under which the appropriations for the Navy Department were made available 'for the pay of commissioned medical officers who are graduates of reputable schools of osteopathy.' On February 12, 1943, the Surgeon General of the Navy, Rear Admiral Ross T. McIntire, testified before a subcommittee of the House Committee on Appropriations in connection with a Navy Department appropriation bill and was asked by Senator Sheppard of Texas if the Navy was exercising the authority to commission osteopaths in its Medical Corps. Admiral McIntire replied as follows:

" 'It is not at this time. I have been in constant communication with them, and we have inspected two of the schools—in fact, the only two schools that would allow us to inspect. The rest of them did not want to be inspected.

" 'One of the schools is really quite good. They lack in two regards, and in that we are telling them where their graduates will have to bring themselves up to a certain point. I have made some very definite suggestions to them as to how they can do these things, and they have turned me down on my proposition. I asked them to let us have some of their graduates to bring in so that we could try them out in internships to see what they can do. We have gotten nowhere. Where they fall down is in preventive medicine. That applies to the sending of doctors out into the field, into the Solomons, for instance. I always say a good doctor has a small sick list. No commanding officer wants many sick men on board. No man who is operating in the field wants a lot of sick men who are going to immobilize him. What I am trying to show these people is the fact that they must approach the whole plan from the preventive side, not wait until a man gets sick and then cure him. Now, that is the trouble with osteopaths, as I find them. We are putting our cards right on the table, because I realize they have spent a lot of time in their schools, and they are American citizens, and they have a right to consideration; but we are fighting a war, and we have got to have medical officers in the Naval Service, and, I think, the Army as well. When I send a man out on independent duty, I have got to know that man can discharge all of his duties. I am not going to let anybody go out if I know that he lacks something professionally. He may not stick, and he may not do what I want done, but it will not be because he did not have the groundwork in the beginning.

" 'Now, when those people will come up and meet these things, then we are prepared to talk business with them.' "

Medical Care for Wives and Infants of Enlisted Men

The following is a statement from Mr. J. W. Holloway, Jr., director of the Bureau of Legal Medicine and Legislation of the American Medical Association:

"On March 18 the President approved a deficiency appropriation bill making available to the Children's Bureau $1,200,000 for grants to states to provide medical, nursing, and hospital maternity and infant care for wives and infants of enlisted men in the armed forces of the fourth, fifth, sixth, and seventh grades. An estimate for this appropriation was initially submitted to the Congress last February by the President, but the House of Representatives refused to include the estimate in an appropriation bill, H. R. 1975. When this bill reached the Senate, however, it was amended to include the estimate and thereafter the House agreed to the Senate amendment.

"The authorized appropriation will enable a continuation of the program that was initiated last year until the end of the present fiscal year, June 30. A bill has been introduced in the House by Representative Keefe, Wisconsin, to authorize additional funds for this purpose so that the program may continue beyond the present fiscal year. This bill, H. R. 2041, is pending in the

House Committee on Labor. It authorizes for each fiscal year during the period of the present war and for six months following its termination a sum not in excess of $6,000,000 for payments to states to provide medical, nursing, and hospital maternity and infant care for wives and infants of enlisted men in the armed forces of the United States of the fourth, fifth, sixth, and seventh grades, under allotments by the Secretary of Labor and plans developed and administered by state health agencies and approved by the Chief of the Children's Bureau. A state plan, to be accepted, must provide: (1) that the cost of administration in the state will be met from funds other than those authorized by the bill; (2) for administration of the plan or supervision of administration of the plan by the state health agency through its division of maternal and child health; (3) for such methods of administration as are necessary for the proper and efficient operation of the plan; (4) that maternity and infant care be authorized under the plan only as requested by or in behalf of wives and infants of enlisted men in the indicated grades, when similar care is not readily available from the medical or hospital facilities of the Army or Navy or from facilities provided by or through official state or local health agencies; (5) that the state health agency will submit such reports as may be required from time to time by the Chief of the Children's Bureau; and (6) for cooperation with medical, nursing, and welfare groups and organizations."

DEATHS

DR. J. Y. ALEXANDER

Dr. J. Y. Alexander, Middleton; University of Nashville, Medical Department, 1907; aged sixty-three; died suddenly March 18, 1943.

RESOLUTIONS

DR. JOSEPH YOUNG ALEXANDER

Dr. Joe Y. Alexander was born near Middleton, Tennessee, in 1880. He attended public and high schools of Iuka, Mississippi, and studied medicine at the University of Nashville. After graduation he did postgraduate work in Chicago and New Orleans, and later specialized in venereal diseases. He engaged in the general practice of medicine at Jackson, Mississippi, and Pocahontas, Tennessee, and later at Middleton. He served at one time as president of the local medical society, and at the time of his death was a member of the local board of examiners for Army selectees.

Doctor Alexander was highly esteemed by his fellow practitioners, enjoyed the confidence and respect of the general public, and was beloved of his friends, whose number was legion. Few men have died in the harness as literally as did Doctor Joe, as he was familiarly called by his associates. He made calls and carried on up to the last hour of his life. While not unexpected, his death came with such dramatic suddenness that the whole community was shocked.

Doctor Alexander leaves his wife; daughter, Sadie; granddaughter, Ina Joe Luna; stepdaughter, Mrs. Isabel Barker; stepgrandson, Phillip Barker; and a host of friends to mourn his passing.

Be it resolved by the Fayette-Hardeman Counties Medical Society:

1. That we have lost a valuable and loved member.

2. That a copy of these resolutions be spread on the minutes of our meeting, a copy be furnished the STATE MEDICAL JOURNAL for publication, and a copy sent to the grief-stricken family, and that we also extend to the family our heartfelt sympathy in their overwhelming loss.

Respectfully submitted,
B. F. MCANULTY,
LEON POPE,
P. M. BISHOP,
Committee.

DR. W. M. BARNES

Dr. W. M. Barnes, Henderson, Tennessee, was born January 8, 1883, and passed away January 11, 1943, age sixty-three years and three days. He graduated from the University of Tennessee Medical College in

May, 1909. He was a member of the county, state, and American medical societies.

Doctor Barnes was a quiet, unassuming man, and enjoyed a large practice. He devoted his entire life to suffering humanity. He laid down a noble work and quietly passed into another field, where there is no pain, sickness, sadness or sorrow, but a beautiful rest. He loved his profession, his home, and his God. The influence of his useful life will linger on when stones and lettered monuments have crumbled into dust. The Madison County Medical Society has lost an ever true, honored, and ethical physician. We believe he has been called from a life of sacrifice and suffering to a life of eternal rest and peace.

Therefore, we, the members of the Madison County Medical Society, express a sense of deep personal and public loss in the death of Doctor Barnes, and request that a copy of these resolutions be spread on our minutes, a copy be sent to his wife, and a copy to the TENNESSEE STATE MEDICAL JOURNAL for publication.

Respectfully submitted,
SAM T. PARKER, *Chairman;*
HENRY H. HERRON,
GLENN D. BATTEN,
Committee.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

Leo C. Harris, Jr., captain, Medical Corps, Lawson General Hospital, Atlanta, Georgia, to Schick General Hospital, Clinton, Iowa.

Paul L. Warner, captain, Medical Corps, Lawson General Hospital, Atlanta, Georgia, to Camp Edwards, Massachusetts.

Travis H. Martin, major, Medical Corps, Nashville, is now located at the William Beaumont General Hospital, El Paso, Texas.

Sam Ogle Jones, captain, Medical Corps, Lawson General Hospital, Atlanta, Georgia, to No. 21, Station Hospital, Fort Bragg, North Carolina.

Julius C. Brooks, lieutenant, Medical Corps, 0-1696517, Company "C," 59th Medical Battalion, Camp Gordon, Georgia, to A. P. O. 948, care Postmaster, Seattle, Washington.

H. B. Cupp, captain, Medical Corps, 63d Station Hospital, Ford Ord, California, to 63d Station Hospital, A. P. O. 4543, San Francisco, California.

Joseph B. Killebrew, Camp Gordon, Georgia, to Finney General Hospital, Thomasville, Georgia.

Roger B. Burrus, captain, Medical Corps, 0-228477, Station Hospital, Fort Sam Houston, Texas, to Sixth Station Hospital, A. P. O. 677, care Postmaster, Presque Isle, Maine.

Philip C. Thomas, captain, Medical Corps, Knoxville, is now with the Headquarters, Sixth Replacement Depot, A. P. O. 405, care Postmaster, San Francisco, California.

Robert A. Wise, lieutenant, 24 Sterling Avenue, New Orleans, Louisiana, to 3909 Porter, El Paso, Texas.

W. K. Tilley, first lieutenant, Medical Corps, is now located at Station Hospital, Robins Field, Warner Robins, Georgia.

William W. Watkins, first lieutenant, Big Springs, Texas, to Station Hospital, A. A. F. B. T. C., care No. 10, Greensboro, North Carolina.

Dr. R. A. Hennessey has returned from the Lovell General Hospital, Fort Devens, Massachusetts, to 1604 Exchange Building, Memphis, Tennessee.

Major Melvin M. Simmons, Medical Corps, is now in Orlando, Florida, Ninth Bomber Group, A. A. F. S. A. T.

The present address of Major Charles B. Etter, Medical Corps, is 93d Evacuation Hospital, A. P. O. 3784, care Postmaster, New York City.

Captain Sam C. Cowan, Jr., Medical Corps, St. Anthony Hospital, San Antonio, Texas, to East Clay Street, Mount Pleasant, Iowa.

The present address of Arthur J. Sutherland, major, Medical Corps, is 102 Evacuation Hospital, Camp San Luis, Obispo, California.

NEWS NOTES AND COMMENTS

Dr. Charles H. Heacock announces the removal of his offices from 20 South Dunlap Street to 915 Madison Avenue, Mem-

phis, Tennessee. Practice limited to X-ray diagnosis and X-ray therapy.

Dr. Robert L. McCrackin of the Davidson County Hospital, Nashville, is now at the Thoracic Surgical Service, Bellevue Hospital, New York City.

Dr. R. D. Hollowell, a member of the Shelby County Medical Society, has changed his address from 2801 Third Avenue, North, to 296 Mirror Lake Drive, St. Petersburg, Florida.

The American-Soviet Medical Society has been founded to meet an increasing demand for information about the results and achievements of Soviet medicine.

The president of the society is Dr. Walter B. Cannon, professor emeritus of physiology at Harvard University, member of the National Academy of Sciences of the United States and of the Academy of Sciences of the U. S. S. R.

Dr. Henry E. Sigerist, director of the Institute of the History of Medicine, Johns Hopkins University, is the editor of the journal which will be known as the *American Review of Soviet Medicine.*

The temporary offices of the society are at 130 West Forty-Sixth Street, New York City.

MEDICAL SOCIETIES

Knox County:

June 8—"Shock," by Dr. Eugene Haun. Discussed by Doctor Alexander and Dr. L. A. Haun.

"Shock," movie produced by Sharp and Dohme.

Madison County:

The Madison County Medical Society met in regular session Tuesday evening, June 1, 1943, at 6:30 o'clock at the New Southern Hotel for dinner. Dr. Hermon Hawkins presided over the meeting and the minutes of the called meeting of April 21, 1943, were read and approved.

Dr. William Grant Crook was voted on and received as a member of the society.

The Committee on Resolutions of the death of Dr. W. M. Barnes, composed of Dr. Sam Parker, chairman, Dr. Glenn Batten, and Dr. Henry Herron, reported by reading the resolutions and presented the society with three copies, one copy to be sent to Mrs. Barnes and another copy to be sent to the STATE MEDICAL JOURNAL, and the third copy to be retained by the society.

Dr. James McClaran made a report as chairman of the Blood Plasma Committee and made an appeal for blood donors.

Dr. J. Owsley Manier read a paper on "Medical Aspects of Carcinoma of the Colon" and Dr. Leonard Edwards read a paper on the "Surgical Aspects of Carcinoma of the Colon" and presented slides. The papers were much enjoyed by all present.

Visitors present: Dr. R. A. Douglass, Dr. V. A. Massey, Dr. Robert Morris, Lieut. Lawrence Radin.

Members present: Stephens, Huntsman, Batten, James, Moore, Herron, Parker, Burrus, McClaran, Powers, Leland Johnston, Helen Johnston, Crook, Sr., Crook, Jr., S. Herron, Hawkins, Saunders, Jones, and Byers.

OTHER MEDICAL SOCIETIES

The Southern Medical Association will hold its annual meeting in Cincinnati, Ohio, November 16, 17, and 18, 1943.

The ninety-seventh semiannual meeting of the Middle Tennessee Medical Association was held in Dickson, Tennessee, on Thursday, May 20.

The following papers were read:

"Crumbs from the Kitchen Table," by Dr. J. F. Adams, Woodbury. Discussed by Drs. Otey J. Porter, Columbia, and H. H. Shoulders, Nashville.

"Clinical Significance of Jaundice," by Dr. Thayer S. Wilson, Gordonsville. Discussed by Drs. Walter Pyle, Franklin, and W. C. Dixon, Nashville.

"Remarks on High Blood Pressure," by

Dr. David Strayhorn. Discussed by Drs. Bryce Runyon, Clarksville; J. O. Manier, Nashville; and B. H. Woodard, Spring Hill.

"The Clinical Significance of One Harelip in Single Ovum Twins," by Dr. J. J. Gwin, Hartsville, and Dr. Beverly Douglas, Nashville. Discussed by Drs. Sam Clark Nashville; M. S. Lewis, Nashville; and T. R. Ray, Shelbyville.

Motion picture, "Automatic Cutting of Skin Grafts for Burns," by Dr. Beverly Douglas, Nashville.

"Difficulties in Bag Induction of Labor," by Dr. Lucian Caldwell. Discussed by Drs. Chas. L. Lowe, Lebanon; W. Scott Bayer, Nashville; and John Cason, Murfreesboro.

"Presidential Address," by Dr. John S. Cayce, Nashville.

"Acute Abdominal Symptoms in Arachnidism," by Major Harwell Wilson, Camp Forrest.

"Differential Diagnosis of a Rash Simulating Scarlet Fever," by Dr. R. C. Kash, Lebanon. Discussed by Drs. J. S. Beasley, Centerville, and John M. Lee, Nashville.

"Certain Complications of Modern Therapy," by Dr. Albert Weinstein. Discussed by Drs. C. S. Thomas, Nashville; George C. Williamson, Columbia; and W. H. Witt, Nashville.

Officers elected were Dr. C. D. Walton, Mt. Pleasant, President; Dr. David Strayhorn, Nashville, Vice-President; Dr. Beverly Douglas, Nashville, Secretary.

A special committee was appointed to arrange for the one hundredth semiannual program of the society which will be the fall meeting of 1944.

The forty-ninth annual meeting of the Upper Cumberland Medical Society will be held at Red Boiling Springs, Tennessee, June 15 and 16, 1943.

Officers of the society are Dr. Fred Terry, Cookeville, President; Dr. C. B. Roberts, Sparta, First Vice-President; Dr. J. T. Smith, Gamaliel, Kentucky, Second Vice-President; Dr. J. P. Sloan, Jamestown, Third Vice-President; and Dr. L. M. Freeman, Granville, Secretary-Treasurer.

ABSTRACTS OF CURRENT LITERATURE

ANESTHESIA

By Hugh Barr, M.D.
Medical Arts Building, Nashville

The Use of Pentothal Sodium Anesthesia in Thoracic Surgery. Randolph and Kober. Journal of American Medical Association, April 10, 1943.

The selection of an anesthetic for thoracoplasties presents problems differing from that encountered in other types of surgery. The authors now use pentothal sodium without procain more than any other anesthetic for this purpose. Deepest anesthesia is needed at the beginning to control the reaction to the skin incision. To maintain satisfactory anesthesia to prevent coughing is usually the amount required to prevent movement.

A series of 123 thoracoplasties performed on fifty-three patients is reviewed. There were no operative deaths. Some degree of cyanosis was occasionally seen. Postoperative nausea was severe in five and slight in forty-five cases. Four patients had postoperative shock. Pentothal sodium is nonirritating and awakening is more like that of after a night's sleep.

There is a reduced incidence of postoperative spread of tuberculosis. There were only three such cases. Atelectasis occurred twice, which is much less than that following other types of anesthesia. Another advantage is that patients may be fed earlier.

INTERNAL MEDICINE

By R. B. Wood, M.D.
By D. R. Thomas, M.D.
Medical Arts Building, Knoxville

A Review of the Drastic Shock Therapies in the Treatment of the Psychoses. Franklin G. Ebaugh, M.D., F.A.C.P., Denver, Colorado. Annals of Internal Medicine, March, 1943.

The use of the drastic therapies in treatment of various forms of psychoses was reviewed in 1941 by the United States Public Health Therapies. This study included a questionnaire sent to 356 hospitals. Of the eighty-five per cent which responded, eighty-five per cent were using shock therapy, either insulin, metrazol, or electric. An analysis of this information showed a definite trend to the adoption of electric shock therapy.

Prognostic factors have been evaluated by Cheny and Clow, who claim the following are more indicative of favorable result:

1. Acute onset in contrast to gradual change in personality.
2. Onset with precipitating factor.
3. The productivity in psychotic symptoms, espe-

cially in paranoid ideas, in contrast to a rigid paranoid system.

4. Preserved affectivity.

5. A prepsychotic personality with capacities for interpersonal relationships and sublimation.

6. Marked depressive and neurotic features.

Of methods used, electric shock therapy seems to have the following advantages:

1. Immediate loss of consciousness associated with the painless electric shock and the complete amnesia for the whole treatment remove many of the subjectively disagreeable elements found in the other induced methods.

2. Lack of discomfort following the treatment aids in securing needed cooperation of the patient.

3. It removes the inconvenience of frequent intravenous injections.

4. It is possible to produce both a grand mal and petit mal convulsion.

Deaths from the different methods follow: insulin, .6 per cent; metrazol, .1 per cent; electric, .05 per cent.

Whether these therapies are a permanent part of our therapeutic armamentarium or not cannot be stated at this time, but they have aroused tremendous interest in mental hospitals and have emphasized the importance of treatment of serious psychotic reactions, with the resultant changes in the attitude of the personnel of these institutions, as well as patients and their relatives and the general public.

Pulmonary Embolism with and Without Acute Cor Pulmonale with Especial Reference to the Electrocardiogram. Donal Murnaghan, M.B.B., Ch.; Sylvester McGinn, M.D.; and Paul D. White, M.D., Boston, Massachusetts. American Heart Journal, May, 1943.

Now that the medical man as well as the obstetricians and surgeons are recognizing that pulmonary embolism happens frequently in their practice, it is important that there be a clear recognition of the most important symptoms and signs. Fever and leucocytosis are the most frequent signs of the phlebitis itself, while in the case of embolism one notes sudden dyspnea, oppression in the chest, unexplained tachycardia, fever, leucocytosis, rales in the lungs even in the bases in the absence of congestive failure. Infrequently the classical signs of extensive pulmonary consolidation are present. "The outstanding clinical feature is the sudden onset of dyspnea or oppressive anterior thoracic pain, with or without a feeling of faintness, accompanied by rapid, shallow respirations and tachycardia. The patient may show evidence of increased venous pressure, with cyanosis, distended neck veins, and an increased pulmonic second sound. If shock and collapse predominate, the patient becomes pale, cold and clammy, shows a marked fall in blood pressure, and has a fast, thready pulse. Many patients at first present the signs of increased venous pressure, which are soon followed by a state of shock. They may closely simulate patients with acute coronary occlusion when seen in this condition. Later, with the pleuritis which usually accompanies a pulmonary infarct, there may be pain on breathing, in one side of the chest or the other, or in the back, or even in one shoulder if the diaphragmatic portion of the pleura is involved."

McGinn and White described the acute cor pulmonale as the result of sudden distention of the right ventricle and auricle following obstruction to the pulmonary circulation by an embolus. The typical electrocardiographic changes noted in this condition are: (1) the presence of or a tendency toward right axis deviation with a prominent S wave in lead 1 (the S T segment may be slightly depressed in this lead); (2) a depressed S T take off in lead 2, followed by a rising S T segment and a low upright or diphasic T wave; (3) a moderately deep Q wave, slight convexity of the S T segment and an inverted T wave in lead 3; and (4) a diphasic or more often an inverted T wave in lead 4 (lead 4 F).

Some factors which may modify the electrocardiographic appearance of the typical pattern are: (1) deviation from the normal caused by preexisting heart disease; (2) the degree of mechanical obstruction to the pulmonary circulation; (3) the length of the interval between the attack and the taking of the electrocardiogram; (4) the presence of abnormal conditions which of themselves alter the electrocardiogram as toxic states, digitalis; and (5) the presence of abnormal rhythms.

In the severe forms of acute cor pulmonale one obtains the typical pattern described above, but in the lesser severe only transient signs may be discovered as a tendency to right axis deviation as evidenced by a small S in lead 1 or a low takeoff of S T segment in lead 2 or 1 or a Q wave and inversion of T in lead 3 or a negative T in lead 4. Multiple chest leads, particularly leads 4 F in positions 2 and 3, may reveal a negative T which will not be detected by the usual tracing.

One must keep in mind the occasional similarity of the electrocardiographic patterns of acute cor pulmonale and coronary occlusion. Also that either condition may more or less set off the other. Anorexia from pulmonary embolism may produce transient changes in the tracings, which may simulate acute cor pulmonale without the more persistent changes found in acute myocardial infarction, and it is the author's belief that anorexemia produced by a pulmonary embolus may cause infarction in cardiac muscle.

The Treatment of Uncomplicated Duodenal Ulcer. Lucian A. Smith, M.D., and A. B. Rivers, M.D., Rochester, Minnesota. Journal of American Medical Association, Vol. 122, No. 4.

Uncomplicated ulcer implies the absence of perforation, hemorrhage, retention, etc., and its treatment has often become confusing because of the birth of so many therapeutic measures that have often tended to forget the patient in favor of the local lesion. In this paper the authors attempt to

point out some known facts that can be applied to treatment.

From a diagnostic standpoint, it is well to remember symptoms of ulcer are most apt to occur at that time when acid formation is at its height, and relief comes from the dilution of this acid. A positive X-ray is not essential for diagnosis.

Choice of treatment is modified by the chronicity of the ulcer as by many other factors, but, as a rule, the following groups of patients should receive medical treatment first:

1. Almost all with uncomplicated duodenal ulcers.
2. All persons under thirty years of age.
3. Most of the older with low-grade symptoms.
4. All old patients with other debilitating diseases.
5. Psychoneurotic patient.
6. Hyperirritable patients with rapidly emptying stomachs.
7. Those who refuse operations.
8. Women who have no extra gastric lesions as gallstones.

Those cases of uncomplicated duodenal ulcer which indicate surgical treatment are:

1. Ulcers of long standing with chronic scarring which make healing difficult and recurrence easy.
2. Associated disease of appendix and gall bladder.
3. Economic problems.
4. Intractability to treatment.

Some of the essentials to successful medical management call for a careful evaluation of all the factors which promote chronicity. Neurogenic factors should receive first attention. Neutralization of chemical factors, removal of any infection with special affinity for gastrointestinal localization, vascular nutritional factors, cooperation of the patient—all are of equal and essential importance.

Essentials to successful medical treatment are: (1) Careful evaluation of all factors that seem to promote chronicity, as neurogenic, chemical, infections, vascular changes, etc. (2) Cooperation of the patient with two points being made clear to him: (a) responsibility of healing is his; (b) that treatment must be directed to more than the local lesion.

The Prevention of Recurrence.—After healing the patient must understand several aspects if he is to prevent recurrence: (a) insight into the emotional factors, and if they cannot be averted the institution of temporary remedial agents during the episodes; (b) the abstaining from returning to old habits conducive to the return of his ulcer; (c) removal of the idea that if medical regime fails he can always resort to surgery and obtain permanent relief.

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

Obstetrical Intravenous Anesthesia (1,550 cases) with N-Methyl-C-C-Cyclohexenyl-Methyl-Barbiturate. J. A. Calvo. Arch. Clin. Obst. Gin. Eliseo Canton, B. Air., 1942, 1: 291.

In the course of four years intravenous sodium evipal anesthesia was used in 1,550 labors at the Maternity Clinic in Bogota. It was found that in the absence of contraindications this anesthetic is harmless for the mothers. The technique of its administration is relatively easy and does not require costly or complicated apparatus. Another advantage is the absence of any danger of explosion. The anesthetic scarcely affects uterine contractions with regard to their frequency or intensity. Furthermore, the effect of pituitrin is not inhibited.

No untoward effect on the fetus could be noticed if fractional doses were employed. There is a relatively great difference between the toxic and the anesthetic dose of sodium evipal. Inasmuch as the drug is very rapidly eliminated, it may be considered as indirectly controllable. If the obstetrician takes advantage of the synergistic action of certain sedatives during the period of dilatation, he can obtain a painless expulsion of the fetus in ninety-eight per cent of all primiparas and multiparas. However, this method of anesthesia should be employed only in hospitals because it requires a competent and experienced personnel.

The author never observed any undesirable remote sequelae from sodium evipal anesthesia on the mothers or newborn. Sodium evipal produces a very desirable amnesia and does not cause vomiting or any other unpleasant symptoms. Its cost is relatively low and the product may be kept indefinitely without spoiling. It is preferable to other drugs used to alleviate labor pain, such as ether, chloroform, ethylene, nitrous oxide, and cyclopropane.

In the 1,550 cases the maternal mortality was .33 per cent and the fetal mortality was 3.7 per cent; in other words, the mortality figures do not exceed those usually found in obstetrical material.

Strychnine and picrotoxin are antagonists of sodium evipal, but the author never had an opportunity to use them. Coramine, cardiazol, and sparteine shorten the hypnotic effect of sodium evipal.

The author uses a freshly prepared ten per cent solution of sodium evipal. He does not use it in premature deliveries because he believes that no type of analgesia or anesthesia should be employed in such cases. During the period of dilatation he administers antispasmodics, such as spasmalgin. When the dilatation of the cervix is complete, the membranes are artificially ruptured and sodium evipal is injected.

The Problem of Abortion. Henry J. Olson, A. H. Lahmann, A. C. Mietus, and R. M. Mitchell. American Journal of Obstetrics and Gynecology, Vol. 45, No. 4, April, 1943.

That the problem of abortion is one of progressively increasing importance is evidenced by the fact that its incidence has increased by an appalling percentage during the last several decades.

The key to the authors' treatment of abortion revolves around the word "conservatism." This is made possible by the fact that in a charity institution cost of care is not a pressing problem. It is admitted, however, that in private practice, where the patient is paying for each hour's stay in the hospital, such conservatism is not entirely feasible, and that immediate evacuation of the uterus upon making a diagnosis if inevitable or incomplete abortion in the absence of sepsis, may expedite recovery in selected cases.

The method of management is essentially as follows: immediately upon admission, a careful sterile vaginal and speculum examination is made for the purpose of both diagnosis and treatment. Any tissue palpable or visible within the vaginal or cervical canals is removed with a sterile ovum forceps, the uterine cavity itself not being invaded.

An oxytocic, either pituitrin or ergotrate, is then administered. If all the products of conception have been discharged from the uterus, bleeding will have ceased. If, on the other hand, any tissue remains, bleeding will continue. In the latter instance, a pack saturated with a five per cent aqueous solution of mercurochrome is inserted into the external os of the cervix and vagina. The pack is removed within twelve to twenty-four hours and not infrequently the remainder of the products of conception will be found lying free and accessible. They hesitate about packing the infected uterus and strenuously emphasize against permitting a pack to remain more than six hours in the presence of fever. To hasten involution, a course of oxytocics, usually consisting of ergotrate (grain 1/320) every four hours for six doses, each dose being accompanied by quinine sulfate (grain 2) is given. The patient is subjected to a dilatation and curettage only if, after three to five days, uterine bleeding is more profuse than a normal lochia. Except in those instances where hemorrhage is brisk and the bleeding in itself absolutely necessitates the procedure, invasion of the infected uterus is considered unjustified.

Although in this entire collection of 800 abortions, there were only four deaths, yet more noteworthy is the fact that not a single death occurred in the last 557 cases of this series. However, there are several points in the modern mode of treatment that deserve attention. The practice of conservatism has been emphasized sufficiently. The administration of oxytocics, by provoking contraction of a sluggish myometrium, serves a dual purpose. Not only are avenues for extension of bacterial invasion through the uterine wall closed, but, by stimulating expulsion of necrotic debris from within the uterine cavity, the nidus of the contaminating saprophytes is eliminated. The judicious use of sulfanilamide and more recently of sulfapyridine and sulfathiazole, particularly against the hemolytic streptococcus, is now clinically well established, and we are certain that they have been responsible agents for lowering the morbidity and mortality rate since their introduction into our therapeutic armamentarium.

Without a doubt, the greatest share of credit belongs to the most efficacious therapeutic agent we have at our disposal—namely, transfusions of whole blood. Infections attributable to the anaerobic streptococcus are characterized by an anemia due in large part to the proteolytic action of the organism on erythrocytes and certain strains of this organism are notoriously resistant to chemotherapy. Whole blood, then, not only compensates for the blood loss due to the hemorrhage which characterizes neglected abortions, but also combats the anemia due to the bacterial hemolysis. Its polyvalent effect goes further, for not only is it beneficial as a supportive measure, as physiologic nourishment and to counteract dehydration, but its bacterial effect is reflected by an immediate elevation of the phagocytic titer of the patient's blood. For the anemic, infected postabortal patient, the administration of repeated small transfusions (250 to 500 cubic centimeters of whole blood daily or on alternate days) is strenuously advocated.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Genuine Tetanic Nutritional Cataract. G. Bietti. Archives of Ophthalmology, May, 1943.

The author refers to the divers forms of nutritional cataract, described by a number of writers and compiled by Jess, and reports on his research with different types of nutrition in rats. The cataract produced was identical with the spontaneous cataract observed in rats. It developed in eighty to ninety per cent of 120 rats. Tables and photomicrographs serve as illustrations.

Bietti concludes that long-lasting and latent nutritional tetany accompanied by cataract may be produced independently from rachitis by means of a diet poor in calcium as compared with phosphorus and lacking calcium-fixing vitamin D. The diet should contain calcium and phosphorus in a ratio of not more than 1.4, with a calcium level not exceeding .040 per cent. In rachitic animals even a smaller disturbance of the calcium and phosphorus ratio will produce cataract, although it does not occur so constantly. An increased phosphorus content in the diet will further to some extent the formation of cataract, which is accompanied by increased neuromuscular irritability and distinct hypocalcemia. The artificial cataract he produced represents a new type—namely, a purely tetanic nutritional form, independent from rachitis. The experiments, in Bietti's opinion, are a contribution to the etiology of nutritional cataracts, and in addition the simplicity and reliability of the method of research makes it readily adapted to experiments on opacification of lens fibers and on cataract in general. The difficulty of experimenting with the

small eyes of rats may in due time be overcome through use of larger animals.

ORTHOPEDICS

By J. J. Ashby, M.D.
Doctors Building, Nashville

Pain in the Shoulder Girdle, Arm, and Precordium Due to Foraminal Compression of the Nerve Roots. Samuel S. Hamflig, M.D., Boston, Massachusetts. Archives of Surgery (May, 1943), Volume 46, Number 5.

The mechanism of impingement on nerve roots is still obscure. It has been suggested by Oppenheimer that the foramen, through which the nerve roots pass from the cervical spinal cord, may be narrowed by a breakdown of any of the tissues that normally hold in place the bones which form the foramen. Thinning of the intervertebral disc obviously diminishes the space between the vertebra and the height of the foramen, and the forward displacement of the articular process of the subjacent vertebra must, of necessity, cause decrease in the lateral diameter.

In the cervical portion of the spinal column degenerative changes in the intervertebral discs occur most frequently from the fifth to the seventh cervical vertebrae. The nerve roots associated with these vertebrae are larger than those of the upper cervical nerve roots. This may explain the frequency of radicular symptoms originating from these levels.

Oppenheimer further suggested that the foramen may be encroached upon and narrowed by the formation of bony or inflammatory tissue. Into this group may fall the primary apophysical arthritis with resulting thickening of the synovial, ligamentous, and periosteal structures. This concept may explain the manner in which a single trauma or chronic trauma, due to a malalignment or postural strain, may produce radicular irritation. One must also think of a posterior exostosis occurring in such a location as to encroach on the foramen.

Whichever mechanism is accepted as the one producing the narrowing of the intervertebral foramen, one must conclude that it is but a predisposing factor and that there is an additional inflammatory element superimposed upon it. Traction affords relief by temporarily increasing the size of the foramen and allowing the frictional neuritis to subside. Similarly high voltage roentgen radiation reduces the edema and congestion of inflammatory tissue and by doing so probably increases the foraminal space.

The clinical picture of impingement of a nerve root is always characteristic. If the irritation is in the upper cervical region, the pain begins in the upper posterior region of the neck and radiates up over the occiput toward the temporofrontal region. This is commonly referred to by the patient as a headache, and is usually worse in the morning. There may be burning or aching in the occiput.

If the symptoms arise in the lower cervical region, the pain is referred to the top and back of the shoulder and outer aspect of the arm. It may travel with the outer aspect of the forearm, wrist, or fingers. The pain is often referred to the precordium, and may be mistaken for original pain. Sensory symptoms are more frequent than motor symptoms. If the pain is well established, it is usually influenced by one or more motions of the neck. Some patients have more pain on extension of the neck and some on flexion, and in still others have worse pain on rotation of the head.

Anything, such as coughing and sneezing, which elevates the pressure within the spinal meninges, increases the pain. If the condition has progressed for some time, the pain may become unbearable. The neck is carried stiffly, and the patient resists the motion which accentuates the pain. Pain is usually worse when the patient is in a recumbent position. Sometimes narcotics will not help if used in usual doses.

Careful history and complete orthopedic and neurological examinations aided by roentgen studies, and the response to overhead suspension, are important in making the diagnosis. Other disorders, such as those of the shoulder joint, cervical rib symptoms, scalenus-anticus syndrome, ruptured intervertebral disc, etc., which produce similar symptoms, must be ruled out. Roentgen projections should include an anteroposterior view of the cervical spine large enough to include cervical ribs if present. A lateral view should clearly visualize the lower cervical vertebra. An oblique view of each side of the cervical spine should be taken.

Suspension traction aids in the diagnosis. The patient sits with his heels resting lightly on the floor. Traction is applied (using a halter, a strong rope and pulley, suspended from above) until the buttocks swing clear of the seat. The patient is told that his pain may diminish, disappear, increase, or remain unchanged. He is asked to note any change while being suspended or lowered to the sitting position. If the patient has friction neuritis due to narrowing or crowding of the foramen, the response is typical and constant. The patient will state that the pain diminishes when he is lifted off the seat. It returns to its former intensity the moment he is lowered to a sitting position. Any variation of this response must be viewed with suspicion. If the response is atypical, the traction should be tried a day later. A positive response to stretching assures an early cure by traction in every instance.

Once traction has been decided on as necessary, one has the choice of two types. The suspension type of traction can be continued or replaced by traction in bed. The author prefers the repeated overhead stretching. Once intelligent patients have become familiar with the technique, they can carry out this treatment at home. Traction will relieve most of the patient's pain in four to seven days, after which there is a gradual disappearance of the

residual pain through a period of a week to ten days. The patient is lifted for a moment or two and then lowered. This is repeated for two or three minutes. This constitutes a treatment period. This is followed by an application of heat and massage to the neck muscles. The average case calls for three stretching periods on the first two days, two each for the next two days, and then they are spaced out as needed.

The author states that the procedure can be utilized without fear. I have used it a good many times and am convinced that it must be used with care and judgment, taking the reaction of the individual patient with consideration.

ROENTGENOLOGY

By J. Marsh Frere, M.D.
Newell and Newell Sanitarium, Chattanooga

Total Body Irradiation with Review of Cases. Fred G. Medinger, M.D., and Lloyd F. Carver, M.D., from the Memorial Hospital, New York, New York. The American Journal of Roentgenology, Vol. 48, No. 5, p. 651.

The results of the treatment of 270 cases demonstrate that total body irradiation produces the greatest palliation in the group of lymphomatoid diseases, and therefore its usefulness is largely restricted to this group of radiosensitive tumors. The diseases showing the greatest benefit from this therapy are chronic lymphatic and myelogenous leukemia, Hodgkin's disease, lymphosarcoma, and polycythemia vera. Less striking improvement was noted in mycosis fungoides and multiple myeloma. No appreciable improvement followed this therapy in the cases of generalized metastatic carcinoma or sarcoma.

Although in many European clinics total body irradiation has been abandoned in favor of teleroentgen therapy because of serious or fatal reactions, our experience shows that this method is safe when used judiciously, with the knowledge that excessive dosage produces a deleterious effect on the course of the disease as well as definite harmful reactions to the patient. In not more than twelve cases in the series was it felt that the patient had received an overdosage of irradiation, usually a combination of local high voltage roentgen therapy plus total body irradiation, which resulted in the weakening of general resistance to the disease or infections and so hastened death. There is no exact rule for the selection of dosage. The aim of therapy is to obtain maximum improvement with minimal unfavorable reactions. In the determination of this dosage one must be guided by several factors: (1) age and general resistance of the patient; (2) the disease and its extent; (3) the amount of previous irradiation; (4) the blood cell levels previous to therapy; and (5) the response of the patient during treatment. Frequent blood counts during treatment are a necessary guide to the effects of therapy on hematopoiesis and resistance of the patient. In the radiosensitive leukemia, a maximum continuous dose of 100 to 150 usually proved adequate; in Hodgkin's disease and lymphosarcoma doses to 100 to 300 were used. It is important to caution against acceptance of these doses as standards which may be adopted for every case in the several disease groups. The treatment of each case must be carefully evaluated beforehand and the dosage individual.

In order to evaluate the response of the patient and the disease to therapy numerous cases receive a small dose of twenty-five r, and if a satisfactory response is obtained therapy is renewed for an optimum dose. A dose of 300 r, given in one continuous course in ten days appears to be the upper limit of safe dosage for a patient in good health, but it is to be emphasized that in many patients transient toxic reactions appear which preclude dosages higher than fifty or 100 r. Marked vomiting, weakness, apathy, fever, purpura, or hemorrhage and development of leukopenia are the danger signals calling for discontinuance of total irradiation. In twenty per cent of the patients mild gastrointestinal distress or weakness was apparent, but usually cleared rapidly following completion of therapy.

Leukopenia resulting from depression of the bone marrow is the most important complication of total body irradiation and wherever possible should be avoided. Varying with the groups, it appeared in ten to twenty per cent of our cases, and, if the dosage had not been excessive, was of brief duration. In the leukemias and lymphosarcomas, leukopenia usually was apparent at the end of treatment and in only a few cases was delayed up to two or three months. In Hodgkin's disease and the radioresistant tumors, leukopenia most often first appeared two to eight weeks following treatment, and in a few cases was delayed for five to six months. In the latter, however, factors other than irradiation may have been responsible for the leukopenia.

In no case with a white count of greater than 5,000 before treatment did total body irradiation result in a permanent or fatal neutropenia. On the other hand, in eight cases showing no response to localized therapy and with definite leukopenia, total body irradiation was followed by further decrease in white cell count which persisted in spite of active supportive therapy until death. It is to be emphasized, however, that leukopenia *per se* is not an absolute contraindication to this therapy, for in about half of the cases of lymphatic leukemia in a leukopenic phase, therapy was followed by a return of leukocytes to normal levels. In general, wherever leukopenia exists because of active disease, improvement in the blood picture following therapy may be anticipated.

The results in this series of cases indicate that total body irradiation produces the greatest benefit when combined with local high voltage roentgen therapy. As measured by symptomatic improvement or remission of the disease, survival rates

after treatment, number five years survivals and lengthening of the period of useful active life, those cases showed optimum benefit in which the disease was first controlled by local irradiation followed shortly by a course of total body therapy. The constitutional improvement is manifest by a sense of well-being, betterment of gastrointestinal function, weight gain, and increase of hemoglobin. It has been suggested that the improved end results in these diseases following irradiation may depend to a considerable extent on the improvement of the constitution of the patient. That total irradiation also exerts a definite effect on tumor growth-resistance is apparent not only by the longer intervals of freedom of disease in numerous cases, but also in the better survival rates following treatment. This is especially apparent in Hodgkin's disease and lymphosarcoma. In the advanced or radioresistant cases of lymphomatoid disease, the responses to total body therapy were minimal and so we are unable to confirm the impression of others that these cases respond more satisfactorily to total body irradiation. In cases of generalized carcinoma, total irradiation produced no significant improvement.

Numerous theories have been advanced to explain the beneficial effects of general body irradiation. All agree that this therapy exerts chiefly a constitutional effect so that the resistance of the patient to his disease is increased, but the exact mechanism remains obscure. That a definite biochemical change takes place in the blood elements following total irradiation has been proved recently, and this may be the first clue to defining the exact mechanism of irradiation effects on all cells.

Conclusion

1. Total body irradiation has its greatest usefulness in the treatment of the lymphomatoid diseases. Little or no benefit follows its use in the treatment of generalized carcinoma or sarcoma.

2. The survival period, as well as the period of active useful life, is prolonged in patients with Hodgkin's disease, lymphosarcoma, and chronic lymphatic leukemia treated by total body irradiation.

3. Favorable palliation followed the use of total body irradiation in small groups of patients with chronic myelogenous leukemia, polycythemia vera, mycosis, fungoides, and multiple myeloma.

4. Acute lymphatic and myelogenous leukemia are not benefited by this therapy.

5. The most favorable results for the treatment of the lymphomatoid diseases were seen in those cases with early localized disease where obliterature therapy by local roentgen irradiation or surgery preceded total body irradiation.

6. Total body irradiation is a useful adjunct to local roentgen therapy in the treatment of the lymphomatoid diseases.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

The Local Use of Cod-Liver Oil in the Genitourinary Tract. L. R. Reynolds and T. L. Schulte. The Journal of Urology, March, 1943.

Because of the excellent results reported from the use of cod-liver oil in burn, infected lesions, trophic ulcer, and fistulae, it occurred to the author to use it on the epithelial surfaces of the urinary tract.

The experimental and clinical results with cod-liver oil show it to be sterile, bacteriocidal and nonirritating to the tissue. It protects granulation tissue, stimulates leucocytosis, and has an analgesic effect.

The author has instilled this drug in twenty-five patients—ten males and fifteen females. It is instilled in doses of one ounce. Fifteen cases had prompt relief from the first instillation. The other ten required daily instillations for from two to four days before relief was obtained. It was used in conjunction with chemotherapy. In some cases of severe cystitis the patients returned for further instillation because of the relief they obtained.

Five women with chronic cystitis and secondary contracted bladder received the oil instillation along with other therapy with relief. However, they all subsequently had a recurrence of symptoms. The symptoms were less severe and the intervals between the attacks longer.

Cod-liver oil has been used in cases of cord bladder with cystitis and urinary retention, in cases of prostatic hypertrophy with residual urine, in cases of verumontanitis and posterior urethritis, in cases of urethral stricture after dilatation, and in cases of bladder tumors after fulguration, all with good relief of symptoms.

Cod-liver oil may cause untoward reactions from overdosage.

Cystoscopic examination after instillation demonstrated a generalized hyperemia of the bladder. Regardless of this, the patient's symptoms were improved and there was less pus in the urine than before the use of the oil. However, due to this hyperemia, the oil should not be instilled too often, not oftener than once every twenty-four hours, and preferably twice weekly. Instillations of cod-liver oil has been used in various types of infection of the urinary tract as an adjunct to other therapy with beneficial results.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.
President-Elect—Dr. Kyle C. Copenhaver, Medical Arts Building, Knoxville.
Vice-President for West Tennessee—Dr. J. W. Oursler, Humboldt.
Vice-President for Middle Tennessee—Dr. Burnett W. Wright, Nashville.
Vice-President for East Tennessee—Dr. J. C. Brooks, Chattanooga.
Secretary-Editor—Dr. H. H. Shoulders.
Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1946).
Dr. E. R. Zemp, Walnut Street, Knoxville.
Dr. B. L. Jacobs, Provident Building, Chattanooga (1946).
Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).
Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Jere L. Crook, Jackson.
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.
Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1946).
Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennesse (1946).

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H. P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	I. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	R. M. Workman, Clarksville	M. L. Shelby, Clarksville	Jack Ross, Clarksville
Obion			D. S. Latimer, Union City
Overton	W. M. Breeding, Livingston		A. B. Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood	W. W. Hill, Harriman	
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			W. M. Dedman, Gallatin
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. W. L. Williamson, Memphis
Dr. L. W. Edwards, Nashville
Dr. E. G. Wood, Knoxville
Dr. A. M. Patterson, Chattanooga
Dr. J. O. Manier, Nashville

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville (1945)
Dr. A. F. Cooper, Memphis (1944)
Dr. Cecil E. Newell, Chattanooga (1946)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. E. A. Gilbert, Chattanooga (1944)
Dr. R. R. Crowe, Nashville (1946)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Lee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1946)
Dr. John B. Steele, Chattanooga (1946)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1946)
Dr. T. R. Ray, Shelbyville (1946)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. O. N. Bryan, *ex officio*, Nashville

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1948)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1946)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1946)
Dr. John M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. C. H. Sanford, Memphis (1944)
Dr. D. W. Smith, Nashville (1946)

COMMITTEE ON MEMOIRS

Dr. James O. Walker, Chairman, Franklin (1945)
Dr. D. W. Hailey, Nashville (1944)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1946)
Dr. J. L. Hankins, Johnson City (1946)

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. John S. Cayce, Nashville (1944)
Dr. J. B. Fitts, Chattanooga (1944)
Dr. M. L. Hefley, Knoxville (1946)
Dr. C. W. Friberg, Johnson City (1946)

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. W. R. Cross, Knoxville (1946)

COMMITTEE ON CANCER

Dr. C. H. Heacock, Chairman, Memphis (1944)
Dr. Ralph H. Monger, Knoxville (1946)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. Stanton S. Marchbanks, Chattanooga (1944)
Dr. Howard King, Nashville (1946)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. C. R. Thomas, Chattanooga (1944)
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1946)
Dr. George Inge, Knoxville (1946)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. Carrington Harrison, Nashville (1946)

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. E. T. Newell, Chattanooga (1945)
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Robert F. Patterson, Knoxville (1946)

COMMITTEE ON PREPAYMENT PLANS FOR MEDICAL AND HOSPITAL SERVICES

Dr. J. O. Manier, Chairman, Nashville
Dr. R. R. Brown, Nashville
Dr. J. C. Brooks, Chattanooga
Dr. M. S. Roberts, Knoxville
Dr. A. R. Porter, Jr., Memphis
Dr. W. D. Stinson, Memphis

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatic Society—
President—Dr. Frazier Binns, Nashville*
Vice-President—Dr. O. L. Von Canon, Chattanooga*
Secretary—Dr. Gilbert Eblen, Knoxville*

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland*
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis*
Vice-President—Dr. Franklin B. Bogart, Chattanooga*
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

*In service.

★ ★

To America's Fighting Forces:

The NC&StL would like to make a public report to you men and women who are fighting America's battles all over the world so that you can know just what this Company is doing to support you, whether it is making or has made abnormal profits, whether it is doing its full duty as a common carrier in supporting the war effort, etc.

From January 1, 1932, through December 31, 1938, the NC&StL not only made no profit during this seven-year period, and, of course, paid no dividends, but actually lost $2,147,239.00 on its operations, although it paid $4,356,804.00 in taxes.

In 1939 the NC&StL paid $995,068.00 in taxes and made a profit of $618,668.00, paid no dividends, and put its small profit back into the railroad to enable it to function better as a public servant.

In 1940 the NC&StL paid taxes in the sum of $1,153,861.00, made a profit of $703,444.00, paid the stockholders $255,981.00, and put the balance, or $447,463.00, back into the property.

In 1941 the NC&StL paid $1,914,241.00 in taxes, made a profit of $1,888,517.00, paid dividends in the sum of $511,963.00, and put the balance, or $1,376,554.00, back into the property.

In 1942, estimating the last few days, and using exact figures for the balance, the NC&StL accrued taxes in the sum of $4,649,068.00, made a profit of $4,183,188.00, paid dividends in the sum of $767,946.00, and is putting the balance, or $3,415,242.00, back into the property to better handle the war traffic.

The NC&StL, in spite of the tragic lean years of the depression, began to prepare for the current emergency even before the war in Europe broke out. Between January 1, 1937, and the present time the NC&StL has spent, not on maintenance, but on Additions and Betterments and Improvements, plus operating expenses incidental thereto, the sum of $13,614,175.00. In addition, other projects, such as the purchase of locomotives, the installation of automatic signals, and the like have been approved by the Board of Directors of this Company and ordered and are only awaiting the approval of such governmental agencies as the War Production Board. The cost of such expenditures as have been authorized by the management of this Railway and are only awaiting governmental approval amounts to $3,205,195.00, in addition to the sums previously mentioned.

The railroads are one of the few businesses in America which from their own funds must finance improvements made necessary solely because of the war. This Company has had to borrow to date $4,645,500.00, but will have to borrow more, if much-needed additions and improvements authorized and on order are permitted by the Government.

Its present profits, equal to only 4.2% on the value of its operating properties (as determined by the Interstate Commerce Commission's valuation of 1916 as brought up to date), are not enough to pay for the additional things which are necessary solely because of the war. For example, stations and other facilities at many places are having to be supplemented at large expense when such expenditures were not needed before the war and will not be needed after the war, and more locomotives and cars are needed to carry the sudden increase of war business. While making these expenditures to support the war effort the NC&StL, as above detailed, is paying the largest amount of taxes in its history, and the highest scale of wages in railroad history (far more than you fighting men receive for comparable hours of labor) while paying its owners, as dividends, less than half of what they received on the average during normal peacetimes — and this was not large. No complaint is being made about this, but you boys and girls who are making so many sacrifices are entitled to know the facts.

This Company, under the orders of its Board of Directors, is undertaking to do everything necessary to the handling of war business, whether it be troop trains, explosives, bombs, gas, airplanes, tanks, guns, or otherwise.

While the management of this Company is undertaking to continue to run the NC&StL efficiently and economically as a sound business investment, at the same time, the primary and controlling factor in everything it has been doing, is doing, and will do is the full and complete support of the Nation's war effort.

War is no novelty to this old railroad, now nearly one hundred years old. From Brice's Cross Roads and Shiloh on the west to Nashville, Franklin, Stone's River, Murfreesboro, Lookout Mountain, Missionary Ridge, Chattanooga, Chickamauga, Dalton, Kennesaw Mountain, and Atlanta, its properties have been one vast and bloody battlefield. During that period it willingly sacrificed everything it had to support the then war effort of its own people.

Again today this old railroad, IF THE NEED ARISES, will sacrifice everything it has in the way of property, credit, money, or otherwise to support the armed forces of the Nation. The management of the NC&StL wants you fighting boys and girls to know there is no work and no sacrifice which it will not gladly make to give you the support to which you are entitled.

The Nashville, Chattanooga & St. Louis Railway

★ ★

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 7

JULY, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

THE POSTWAR CORESPONSIBILITY OF THE HEALTH PROFESSIONS, Robert L. Swain, Editor, "Drug Topics" 247
YOUR STAKE IN CAPITALISM, Eric Johnston, President, Chamber of Commerce of the United States 254
MANAGEMENT OF PLACENTA PREVIA, Milton Smith Lewis, M.D., Nashville 258
SENATE BILL 1161 266
TENNESSEE DOCTORS AND THE MILITARY SERVICE 272
EDITORIAL 278
NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE 282
NEWS NOTES AND COMMENTS 282
MEDICAL SOCIETIES 282
OTHER MEDICAL SOCIETIES 282
ABSTRACTS OF CURRENT LITERATURE 283
LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION 287
STANDING COMMITTEES 288
INDEX TO ADVERTISERS XXII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

SCIENTIFIC BACKGROUND

Mead's Cereal was introduced in 1930, and Pablum in 1932, by Mead Johnson & Company. Since then, the growing literature indicates early recognition and continued acceptance of these products and the important pioneer principles they represent.

☆ ☆

In response to requests from pediatricians, we are also marketing PABENA—precooked oatmeal, enriched with vitamin and mineral supplements. PABENA closely resembles Pablum in nutritional qualities, and offers the same features of thorough cooking, convenience and economy. Supplied in eight-ounce cartons.

Samples on request. Mead Johnson & Company, Evansville, Ind., U. S. A.





A Convenient, Effective Treatment for

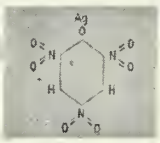
TRICHOMONAS VAGINITIS



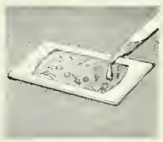
This simple treatment satisfactorily clears up the large majority of cases: Two insufflations, a week apart, using Compound Silver Picrate Powder...

...Supplemented by home treatment with twelve Silver Picrate Vaginal Suppositories (one every night for six nights following each insufflation).

SILVER PICRATE — WYETH



A crystalline compound of silver in definite chemical cambination with picric acid (trinitro-phenol).



A yellaw dye with strang affinities for tissue upan contact.



A source af silver ions effective in cancentrations which, being limited by a low salubility (1%), avoid caustic action.

silver picrate, Wyeth

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA, PA.

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI JULY, 1943 No. 7

THE POSTWAR CORESPONSIBILITIES OF THE HEALTH PROFESSIONS*

ROBERT L. SWAIN, Editor, "Drug Topics"

As we assemble here tonight to do honor to the graduates of the Schools of Medicine, Dentistry, Nursing, and Pharmacy of this university, I am sure that we all rejoice in the radiant fact that good news is flowing in from the battlefields of this global war. While no one can say with certainty just when the war will be won, the signs are unmistakable that we have finally reached the outskirts of the beginning of the end.

There are those thoughtful observers who sense the early collapse of our barbarous foes, both in Europe and Asia, but whether the collapse comes soon or late, come it inevitably will. The outcome of the war is not open to dispute. It will end with the unconditional surrender of our foes, as any other terms would be an affront to our sense of national decency and national resolve.

So tonight we may with complete assurance look at the postwar world as one which we and the brave peoples of Britain, Russia, and China, not to mention the peoples of the "so-called occupied countries," will unite in an effort to make another such catastrophe forever impossible.

We will find ourselves differing with respect to many basic facts. We shall not agree on many important problems, but the good sense, the sober judgment of the world, will evolve some mechanism which will make it impossible for another war of aggression and tyranny to be waged.

Certainly there cannot be another such curse as the morally deranged Hitler brought to the world.

Permit me, also, at this time to extend congratulations to the members of the graduating classes whom we honor on this occasion. I am not a stranger to academic halls. I could expound at some length upon the value of your work at this university, and I could dwell upon the great adventures which surely await you. There is much which could be said upon your value to the world, and upon what the world will insist upon teaching you.

But the hour is too momentous and the times too filled with meaning for me to attempt to give proper emphasis to that upon which you have dwelled much, and upon which you have placed your own measurement. So, again with congratulations, in all that the term implies.

However, tonight, I think we shall do well to leave matters of global statesmanship to others, as we seek a fuller understanding of problems specifically within our own fields. Just what do we, as members of the health professions, face in the postwar years? Will these remain the initiative, the sense of personal responsibility

*Commencement address, University of Tennessee, Memphis, June 14, 1943.

which have given America the finest system of medical care in the world, or will it become necessary for the government to step in because we ourselves failed to meet the test of the changing times? Can medicine and the other health professions be entrusted with formulating a program for the expansion of medical facilities, for a more embracive distribution of medical care, or, in seeking our own selfish ends, shall we blind ourselves to the challenge of the more alert, the more socially minded?

Let us not seek to elude these questions, because they are not to be solved by any such noncourageous treatment. Let us not either deny that we shall be called upon to make our choice. Just a day or so ago, I read in the *Baltimore Sun* a news report which quoted Dr. L. Pierce Anthony, editor of the *Journal of the American Dental Association*, as saying that governmental control of dental practice "is surely coming."

Faced with this prospect, Doctor Anthony said: "The only thing we dentists can do, as I see it, is to devise a plan of procedure fitted to the new order."

While I deplore the defeatist attitude of my brother editor, I think his declaration does constitute a news item which we shall do well to bear in mind. As he sees the future, dentistry is to be practiced under governmental control.

In another news story which came over my desk, James A. Hamilton, president of the American Hospital Association, said that private hospitals must adapt their services to modern needs, or face replacement by hospitals owned, staffed, and conducted by the government itself.

On all sides we are faced with the threat of having the health professions socialized, regimented, and controlled as an instrumentality of the state.

Frankly, let me say that I deplore the prospect of governmental interference with the health professions. I abhor the possibility that these professions may come under political control. I tremble at the suggestion that our splendid systems of medical practice may themselves be under the hand of men who would bend these health professions to political ends.

But, when I have made these observations, let me say that there will be the socialization and regimentation of the medical specialties, unless the medical professions prove themselves worthy of the leadership which they claim they are able to give.

Let us take a look at some of the problems which we face, and let us seek some analysis of the factual and emotional conditions from which they arise.

On the surface, one can hardly be expected to oppose the principles, purposes, and objectives of the Beveridge plan, or its American counterpart, the cradle-to-the-grave program of the National Resource Planning Board. While the plan submitted to Congress by the President is a mere statement of rather obscurely defined objectives, and with no suggestion of how it could be financed or put in operation, no real objection can be raised against the spirit of the proposal.

Obviously, the scheme is an attempt, however visionary it may be, at social betterment. It bespeaks a warmhearted solicitude for the general good. It appeals to our sense of decency, right, goodness, faith, hope, and charity. It is, in fact, a cradle-to-the-grave program in which the federal government would assume the role of motherhood to the whole population.

But, when we learn that the cost to us in America would be between fifteen billion dollars and fifty billion dollars annually, we begin to wonder even if a country as vast and wealthy as ours could afford so luxurious a social program. Obviously, such a proposal should be given the most thoughtful consideration, but we should bear in mind that if a grandiose social program were undertaken, only to be quickly abandoned, the whole urge for social betterment would suffer incalculable injury.

The duty rests upon the medical professions to protect the public against what may well prove to be its own folly. Any scheme, program, plan, or purpose aimed at social betterment is bound to attract strong public support. There is always the urge to follow one's heart rather than his head. The collection plate is rarely turned

away empty. The purpose being good, the means must be good.

The medical phases of the program proposed by the National Resources Planning Board should be left with the medical professions, certainly so far as feasibility, practicality, and real need are concerned.

Pollyanna attitudes may be all right in some places, but certainly, before the nation embarks upon so vast a venture as the National Resources Planning Board insists upon, it needs more than a cheerful smile and cherubic countenance.

It seems to me that the medical professions, and the whole public conception of health progress, would take on a more appreciative appeal if the public really knew the true situation. For this reason, it would seem wise for us to consider some type of public relations work, such as is carried on by other segments of the population who know the significance of public opinion.

Now, in making this suggestion, I am not contending for a continuation of the *status quo*, but I am contending that there can be no understanding study of our medical needs unless the public knows from a factual standpoint just what has already been accomplished.

Then, too, the medical professions have perhaps suffered in public estimation because the public has formed its opinion from *ex parte* evidence. It has heard the clamor of those who insist upon governmental control over medical facilities and the distribution of medical care. It has heard well-intended, but woefully uninformed, social workers bemoan the scarcity of medical attention and the inadequacy of medical care in many sections of the country.

It has read in the public press of the hard-boiled indifference of organized medicine, and it knows that the American Medical Association was convicted for violations of the antitrust laws. The public reads and hears much about the shortcomings of medicine, dentistry, of the deterioration of pharmacy, but it hears little, precious little, from the professions themselves.

For instance, the public is not told that there is lower incidence of disease in America than in any other country in the world. It is not told that the death rate has dropped to the lowest level in our history. It is not told that the life span has been lengthened by years and years in the past few decades. It is not told that contagious and infectious diseases have dropped so low that they no longer rate among the twenty or more major causes of death.

They are not informed with respect to the achievements of medical research, of the splendid progress in medical, dental, pharmaceutical and nursing education, of our unexcelled hospital facilities. They know very little of the magnificent health programs now under way in virtually every state, nor do they know the viewpoints of the man and woman making up the medical professions, the health agencies, and the great drug production facilities of the drug industry.

Frankly, it seems to me that plans for the expansion of medical facilities and the distribution of medical care, if indeed such plans are inevitable, should come from the medical professions themselves. I think no one can argue successfully against the opinion of Dr. Morris Fishbein that planning for postwar medical problems must rest with the groups or callings most directly affected, and which must be looked to to make the plans work.

Postwar medical planning should be the responsibility of medicine, and the same holds good for dentistry, pharmacy, nursing, the drug industry, and all other professional, social, and industrial groups embraced within the confines of medical care.

Whatever plan or program may be worked out must ultimately come back to the existing medical professions or allied groups. Certainly the plan must appeal to their sense of what is technically sound, professionally feasible, and consistent with known facts. No plan based upon a take-it-and-like-it attitude is likely to succeed, and none should be attempted.

The real danger, as I see it, is that the medical professions may be pushed or prodded into forsaking principles and pre-

cepts they know to be sound simply as an escape from the pressure of those insisting upon socialization as the only means of meeting postwar medical needs. Those clamoring for socialization are vociferous, persistent, plausible, and persuasive.

There are signs that the medical professions are not immune to their influence. I find indications that many in the medical professions are sure that the time has come to join up rather than fight on. There is evidence that the spirit, the incentive, the force of character which once distinguished these groups are beginning to show some effect of the eroding power of persistent criticism.

If the medical professions are obligated to protect the public against ill-considered action, then certainly they are under obligation to protect themselves from ill-considered action.

While change may be necessary, desirable, and inevitable, the medical professions do themselves and the public a distinct disservice when they permit themselves to follow a course dictated by mere expediency.

Now, let us take a brief look at the judicial career of the case instituted by the Department of Justice against the American Medical Association, as the possible effects of the case have not been too well explored, nor their meaning made clear.

No one knows how far-reaching the Supreme Court decision in the American Medical Association case may be in the postwar years. On the surface, at least, it would seem to open the door to the corporate practice of medicine, a possibility which would justify the government in leaving the control of medical practice to medicine itself.

Even a court as high as the supreme court is not qualified to determine what is best for the people where questions involving medical needs and facilities are concerned. The court has said on more than one occasion that it cannot attempt to resolve differences of medical opinion, but it did not hesitate to take a positive position on questions which underlie the contrariety of medical points of view.

However, merely because there is the possibility that the way is open for the corporate practice of medicine, the duty rests upon the medical profession to soundly study the prospect with the purpose of again protecting the public against itself.

In connection with this matter, it should be made clear that permitting corporations to engage in professional practice has always been considered unwise as a matter of sound public policy.

A professional practice must of necessity be a personal, individual matter. It is something which certainly cannot be delegated to a corporation. For these reasons, at common law and in many states by statutes, corporations are prohibited from attempting to practice a profession through the guise of hiring individual practitioners. And, in those cases when the attempt has been made, the courts have not hesitated to invalidate the whole deceptive and illegal setup.

Now, of course, there may be no wholesale entrance of corporations into the field of medical practice, but if the possibility does not blossom into a reality, it will be due to the good sense, the dignity, and the innate responsibility of medicine rather than any solicitude for the public good on the part of the august court.

One of our chief concerns in the postwar period will be the rehabilitation of professional education. While no one can state how great the damage will be, it seems inevitable that medical, dental, pharmaceutical, and nursing education will come through the emergency substantially impaired. Care must be taken promptly to discontinue the easing up required by war conditions.

Now, we cannot permit ourselves a casual attitude to this matter. Already there are those who are calling for a continuation of streamlined and accelerated courses, and for an abrogation of entrance requirements. The point is made that if it is possible to do a satisfactory job in much less than four college years in time of war, why should it not be possible to continue to do so in times of peace? Why should men and women be barred by technical entrance

requirements, when many of them could do the work well if given the chance?

Now, the superficiality of these questions shows up with their asking, but even so, these questions are being asked, and they are being asked in such a fashion that we may have to exert ourselves to maintain the integrity of professional education in the health professions.

It would, of course, be possible to call to mind many factual situations which seem to point to public control of the health professions. And, I think we should be open-minded enough to recognize that this movement does not stem entirely from crackpots or woozy-eyed reformers. It does not all originate with politicians or superficial demagogues. Much of it does, but not all.

There are many serious-minded men and women in America who very deeply feel that there are defects in the medical care picture which call for remedial action. They feel that there are problems to be solved which may not be well solved if the medical professions are alone permitted to solve them.

While I dissent from their views, I have too much sense to expect them to fade out just because I might wave them away. No, their views will cease to accuse only when we ourselves meet the situation as it should be met.

I think also that the whole health program would be sharply advanced if there were more practical, more understanding cooperation between the health professions. For twenty years I was a member of the staff of the Maryland State Department of Health, and I learned there just what is to be gained when there is an interchange of opinion between health groups.

At the department were bureaus devoted to child hygiene, communicable diseases, vital statistics, and other purely medical specialties, and these met with bureaus concerned with dentistry, pharmacy, nursing, food and drug control, sanitary engineering, not to mention others.

Cooperation and teamwork characterized the workings of the department, an attitude which began with Dr. William H. Welsh, who was president of the department, and permeated down through every bureau, branch, or division. This cooperation expressed itself in matters of policy, public relations, legislation, and in all other respects bearing upon the state's health program.

There seems no doubt, simply as an illustration, that medicine would gain if it were to use more intelligently the splendid professional abilities of the pharmacist. The pharmacist is the only person in the health field who has been expertly trained in the many phases of drugs and medicines. At this university the pharmacist has spent four years pursuing one of the medical specialties, and certainly has earned the right to be regarded as fully versed in his branch of medical science.

Much would be gained, so I firmly believe, if steps were taken to more closely integrate dentistry, pharmacy, and nursing into medical practice so that in meeting the disease problems of the day our full professional health resources might be used. That there should be any opposition to such practical cooperation is more an indictment of hang-over prejudices than an indication of present-day enlightenment.

I am happy to state that some definite plans are under way in this respect. The American Medical Association and the American Pharmaceutical Association have recognized the need for a more workable understanding between pharmacy and medicine, and already one meeting has been held between their duly appointed representatives to explore the whole situation and to formulate a set of principles which should govern both callings in their interprofessional relations.

Your faculty has shown fine vision in the inauguration of the combined course of pharmacy and medical technology. Modern medicine cannot be practiced without adequate laboratory facilities. This combined course will prove a valuable asset to the medical profession and to the public of the smaller communities of your state. You are to be congratulated on the close cooperation of your medical and pharmacy departments in the formulation of such a

course. It will bring out clearly the responsibility for health on the part of both the physician and the pharmacist. The opportunities offered graduates of this combined course will be very great. In towns where there is not sufficient laboratory diagnosis to support a full-time trained technologist, the combination pharmacist and laboratory technologist will perform an important health service.

As one great health administrator once said: "There can be no practice of medicine without the aid of pharmacy, and there can be no practice of pharmacy without the aid of medicine." This being true, and none can deny it, then common sense demands that some plan be devised which will tap the full abilities of each other so as to make them mutually accepted and utilized.

I believe a careful survey of the whole field of health practice will show that conditions would be generally improved by an intelligent integration of each of the health professions represented here this evening into a more tolerant, a more broad, and with it all a more constructive health program.

It is considerations such as those which have led me to feel that some such body as a National Health Advisory Council might serve a useful and beneficial purpose. Such an agency, made up of medicine, dentistry, nursing, pharmacy, and perhaps a few others, could provide a testing ground for national policy, and might well bring about the very kind of interprofessional relations which seem so urgently required.

Such an advisory council might be compared on the one hand to a mutual assistance pact, and, on the other hand, to a clearinghouse for thoughts, plans, and ideals designed to better health relations throughout the country.

A National Health Advisory Council, properly constituted, would seem an ideal agency for harmonizing opinions and formulating policy in such matters as legislation, public relations, and in suggesting objectives which were mutually desired. I might say that it was the combined work of medicine, dentistry, pharmacy, and nursing working as a unit which was successful in the enactment of the basic science laws in many states. We might as well be practical and admit that in unity there is strength, and that united we stand, and divided we have a good chance to fall.

Some time ago a group of interested pharmacists conceived the idea of a National Health Examination Week. This week would be devoted to educating the public to the need of periodic health examinations so that latent disease might be discovered and treatment begun. It was felt that such an endeavor would be greatly in the public interest, and that the whole health program would benefit tremendously.

Those who gave thoughtful study to the matter saw the drugstore as a strategic factor in such a project. Few realize that more than 20,000,000 people visit drugstores daily, a fact which gives the drugstore such a potential value in consumer relations. It was this factual situation which has given rise to the statement that the pharmacist is the best single individual for the dissemination of health information.

But there has been no attempt to push the National Health Examination Week, simply because the fear has persisted that perhaps it lacked in dignity or was in some other way inacceptable to medicine and other health groups. Had there been a National Health Advisory Council, no doubt the proposal would have been submitted and discussed in the light of its merit, and relationship to the various health points of view.

Now, in conclusion, let me express the conviction that the postwar period will bring many new problems to the professional groups represented here. There will be many diseases imported from Africa, the Orient, and other world battle areas. Malaria will likely become more widespread. We shall be faced with vast problems in the field of nutrition, and venereal disease will be still more dangerous.

We shall have more acute need for research, for ever better therapeutic products, for a mobilization of our scientific might, and for a fuller utilization of our professional resources. Unquestionably there will

be an intensification of health needs, needs which will be a challenge to the professional capacities of the groups honored here tonight.

The duty rests upon us to develop and preserve a true social outlook, and to so devote our talents that our professional work shall be in response to the growing social urge. The health professions should maintain leadership in the health fields, but they should never forget that heavy responsibility goes hand in hand with leadership.

We cannot defend our right to decide without accepting the obligation to meet the social needs of the times and to work everlastingly for the better health programs and for better living conditions among all classes of people and in all sections of the country.

Let me repeat that, much as we may deplore governmental interference with the health professions, we must be aware that failure on our part to meet our responsibilities to the full in these changing times will leave the government no alternative but to move in and take over. We can maintain our supremacy and independence in the health fields if we show, without hindrance or restraint, that we are capable of the leadership which we so proudly proclaim.

It has been a great privilege to participate in the program of this glorious occasion, and to share with you the joy of these commencement exercises. Let me again congratulate the members of the graduating classes in medicine, dentistry, nursing, and pharmacy for a tough job well and faithfully done. May God's blessing rest upon you as you gird yourselves for the challenging adventure which lies ahead. That you will prove yourselves worthy both of your professions and this great university, we have no doubt.

And so, chins up as we move on to victory and to peace!

YOUR STAKE IN CAPITALISM*

ERIC JOHNSTON, President, Chamber of Commerce of the United States

[As ex-captain of Marines, Eric Johnston displayed considerable leatherneck alertness when he landed on the shores of the District of Columbia, as the new president of the Chamber of Commerce of the United States, and began getting the situation well in hand. He startled his Chamber of Commerce Board of Directors by at once calling upon the President of the United States, who had never displayed anything but hostility toward the chamber. He then startled them even more by calling upon William Green and George Meany of the A. F. L. and upon Philip Murray and James Carey of the C. I. O. He soon knew his way about in government and labor circles better than any other business leader who has ever come to Washington.

He is a firm believer in the proposition that more can be done for business by personal acquaintance and conference than by charges and countercharges in the press. He is now in frequent demand as a conciliator in Washington disputes between conflicting elements. He is a member (representing industry) of the citizens' committee assisting Economic Stabilization Board Chairman James F. Byrnes. He is active in the Committee for Economic Development through which many eminent industrialists are preparing for America's postwar business future under the chairmanship of Paul G. Hoffman, president of the Studebaker Corporation.

Mr. Johnston represents the youthful spirit of the West. He operates several successful businesses in Spokane, Washington; and he is only forty-six, which is practically juvenile for Washington, D. C.]

I am for capitalism; and almost all labor leaders I know are really just as much for it as I am. They do not go along with the idea that "capitalism is dead." They know that either private business or government bureaucracy must save this country when the war is over; and they prefer private business.

They have a sound reason. You cannot strike against a government. You cannot even truly bargain with a government. Wages and hours in government employment are fixed by public law. No group of government employers can overturn public law enacted by the Congress and backed by the Army and Navy. In any knockdown contest between a government and a union, the union is beaten from the start.

A C. I. O. leader in Washington had good sense when he remarked the other day: "I would rather bargain with *any* private employer than with *any* bureaucrat. The bureaucrat has jails."

Labor and business therefore can be firm allies in preventing the governmentalization of this country. I fear no direct effort by labor to destroy business in favor of government. What I fear is that people in general—including millions who are wageworkers and millions who are not—may forget just what it is that makes business go.

For this I very considerably blame us businessmen. We are too mealymouthed about the basic principle of our economic system. We have been intimidated by all tirades against "bloated capitalists" and "swollen profits." We fear that the word capitalism is unpopular. So we take refuge in a nebulous phrase and talk about the "Free Enterprise System." And we even run to cover in the folds of the flag and talk about the "American Way of Life."

Such language disastrously obscures the main issue. You cannot take a whiff of "free enterprise" or a stretch of a "way of life" and start a factory with it. To start a factory, and to start the jobs inside that factory, you have to have savings. You have to have money. You have to have *capital.*

It takes thousands of dollars of capital to equip a really modern factory with the machinery for one job for one wageworker. Freedom and Americanism are the atmosphere. But capital is the seed in the soil. Unless we produce that seed, *and unless we plant it,* there will be no new crops of private jobs for the American people when this war is over.

Right there is the basic point, I think, in all planning for American postwar prosperity. And right there is the reason why I do not hesitate to say that the word upon which to fix the national mind at this time is simply, outrightly and frankly, *capitalism.*

Do I sound old-fashioned? In this age, which is prone to think about *welfare* with-

*This article is reproduced from *The Reader's Digest* for February, 1943, by the kind permission of the *Digest.* It is believed that readers of the JOURNAL will find this article of genuine interest. —The Editor.

out thinking about the *wealth* which is necessary to welfare, do I sound reactionary? I summon to my aid one of the wisest friends of labor *and of business* that this country has ever had: the late Mr. Justice Brandeis. Addressing a trade union audience in Boston, Justice Brandeis once said:

"It is absolutely essential that a business be profitable. I do not mean merely that the business should not be run at a loss. I mean that the business should be run under such conditions that the owner is willing to risk his capital in the business."

Note: "risk his *capital*." Mr. Brandeis, the sociological and judicial innovator and pioneer, was for capitalism; and, under his great shadow, I am, too, without apology.

Experienced labor leaders generally quite agree with Mr. Brandeis. William Green, president of the American Federation of Labor, recently said:

"If this country ever gets a system of governmental regimentation, labor will suffer most. Labor, therefore, is deeply interested in the preservation of private business; and *labor should everlastingly maintain that the owners and managers of business are entitled to a fair and just return upon their investments.*"

Mr. Green, I hope, will everlastingly try to teach that truth to all his followers. Business can get nowhere by starving labor. When it starves labor, it is starving the purchasers of its own products. But labor, similarly, cannot get anywhere by starving capital. When it makes demands which starve capital of all profits and savings, it is preventing the creation of new capital and thus preventing the creation of new and better jobs. It is starving its own future.

People will never understand this point unless we say *capitalism*.

The same remark can be made on the point of taxes.

Just because we have not said capitalism, a great many people—in polling booths and in legislative bodies—have thought that you can tax business just as much as you like and still have "Free Enterprise" and "the American Way of Life." You cannot. Because: Just suppose that you taxed all new savings and all new profits and all new capital out of private hands into the public treasury. What would you have left to be the creator of new jobs? Only the government. Only the totalitarian state.

Hardly anybody in America deliberately wants totalitarianism. What threatens us is unintentional totalitarianism. Unless we use our heads, we can slip into it absentmindedly.

On the subject of taxes, some meetings have been started in Washington between economic experts representing the Chamber of Commerce of the United States, the National Association of Manufacturers, the American Federation of Labor, and the Congress of Industrial Organizations. Labor today has its thinkers, just as management has its thinkers. I am hoping that these thinkers may arrive at many points of agreement as to future taxes.

Everybody now is willing to be taxed right down to his last crust of bread rather than let the Axis win. But what about the day after victory? How do we resume and continue and expand and improve our economic freedom as we have known it?

Business leaders are putting much thought upon this problem. They sometimes do not realize that labor leaders are, too. I think it extremely significant and hopeful that the American Federation of Labor has made recommendations to the Congress as follows:

"Provision should be made for the return, in cash, after the war, of a part of the present high taxes. We can well be guided by the English policy which proposes to return a high percentage of the taxes now assessed against low-income workers. *Corporations also need a postwar reserve in order to convert their facilities from war use to peace use and in order to maintain employment.* We think that any corporation called on to pay more than seventy-five per cent of its total net income under the war taxation laws should be eligible to receive a refund of such excess when the war is over."

Here is a frank recognition of the proposition that for postwar prosperity we need not only freedom, but *freedom plus capital.*

Our taxes after the war must permit both employers and employes to stand on their own feet and not become wards of the government. This objective was admirably stated the other day by Robert Watt, a labor leader of great prominence in government wartime agencies. He said:

"After this war I want no gigantic governmental Reconstruction Finance Corporation to finance business and dominate it; and I want no gigantic governmental Works Progress Administration to employ labor and dominate it."

Business and labor should be able to unite toward that end with good will. We should have a closer cooperation between business and labor in the future than we have ever had in the past. By cooperation I do not mean surrender, either by business to labor or by labor to business. By cooperation I mean that both sides should jointly bring forth better fruits of efficiency and productivity.

Labor should drop all "make-work" devices. It should drop all devices for getting paid for work not necessary or for work not done. It should drop all merely negative resistance to improvements of machines and of methods. It should universally adopt the positive policy which some outstanding unions have already adopted. That is, it should help management to improve processes and to reduce costs. More than 1,500 labor management committees are doing this now in the course of the "War Production Drive" to win the war. They should keep on doing it after the war to make the peace also a victory. They should master and memorize the other remark once made by Justice Brandeis. He said: "The one final way in which we can improve the condition of the worker is to produce more, in order that there may be more to divide."

Capitalism has been the greatest force that the world has ever known for increased production. Labor in the future could greatly help to make that force even more successful.

But business also must open its eyes to newer and better performance.

The President recently abolished the W. P. A. Why did he ever establish it? Because business was not giving full employment. If business again fails to give full employment, there will be another W. P. A. This will be so under any president. The first president ever to do anything of any importance for the relief of the unemployed during a depression was a Republican, Herbert Hoover. He set the precedent. The precedent has grown. Public indignation against unemployment, against its misery of body, against its misery of mind, has grown. No American president will ever again permit American citizens to be unemployed. They will be employed by business or they will be employed by the government.

I say that business can employ all American citizens except those needed for absolutely necessary governmental functions. It can do it if it plans for it.

There are two unpopular words. One is capitalism, which is hated in certain quarters. I am nevertheless for it. The other is planning, which is hated in certain other quarters. I am nevertheless for it. I say that business, if it wants to escape from being taxed for another and larger W. P. A., must *plan;* and it must plan on a scale of which it has never before even dreamed.

It has always planned for its own individual enterprises. It must now plan for nation-wide projects by whole industries.

It must look, for instance, at the horrible houses and at the vast wretched, unwholesome, substandard residential areas in which millions of American citizens still live; and it must say:

"To change all this squalor and ugliness into decency and sightliness is a job meaning billions of dollars of business. It cannot be done small. It has to be done big. It has to be done through cooperation among a lot of different elements. There are the manufacturers of standard building materials. There are the laboratory designers of new and more economical building materials. There are the wholesale and retail dealers in building materials. There are the architects. There are the engineers, contractors, building-trade unions, financing agencies, savings banks, building and loan associations. We have been puttering

at this job, everybody by himself, and not getting it done. Now we will make organizations which will include representatives of all elements of housing production and we will produce housing at a private cooperative consolidated cost that will baffle all the public planners in the whole of Washington. Some of them would like to do all this building. We will do it first—and better. We will stop railing at the government. We will start outthinking it and outdoing it and outstripping it."

And there are quite a few other big national-scale jobs for business to plan. Consider our railroads. To give this country a really modern railroad system, a system as good in all its parts as it now is in its best parts, would mean at least ten billion dollars of business contracts.

To modernize everything in this country would mean so many billions of dollars that business could not get through earning them and spending them in twenty years.

We need again the spirit of the pioneers. Only this time it must be a planned and organized spirit. I say to businessmen: Do the planning and the organizing that is worthy of your freedom or there will be no more freedom and no more businessmen.

But I also say on behalf of businessmen: They cannot plan, they cannot organize, they cannot maintain a free system, unless they get one definite concession from labor and from government. It is this:

Business must be allowed to keep enough savings, enough profits, enough new capital, to be able to go ahead into new investments, new adventures, new services.

Free private business is like a motorcycle. It must move. If it stops, for lack of gasoline, it topples. And then, I repeat, there is only totalitarian governmentalism.

We stand at a solemn parting of the ways. Our business leaders and our labor leaders want freedom. No American wants slavery. But what is the price of freedom? I say it is the capital with which to operate capitalism. The word is capitalism.

(Copyright, 1943, The Reader's Digest Association, Inc., Pleasantville, N. Y. Printed in U. S. A.)

MANAGEMENT OF PLACENTA PREVIA*

MILTON SMITH LEWIS, M.D.,† Nashville

Fortunately, placenta previa is a comparatively rare complication. Nevertheless, its importance will be appreciated when it is realized that it is directly responsible for at least six to ten per cent of all puerperal deaths, not to mention the appalling fetal mortality. It is obvious, then, that it is worthy of serious consideration.

Numerous investigators in the past have emphasized the fact that the method of delivery is the most important factor in the reduction of maternal mortality. An analysis of our cases, however, reveals that too little consideration has been given to certain fundamental procedures that should be fulfilled before any type of delivery is attempted. These are: (1) Immediate hospitalization of all suspected cases of placenta previa. (2) Proper preparation of the patient before delivery by the use of blood transfusion. (3) The establishment of an accurate diagnosis. Neglect to carry out these important measures will often spell the difference between success or failure.

Immediate Hospitalization

All cases of painless bleeding in the last trimester of pregnancy should be considered as placenta previa until proven otherwise, and, therefore, should be immediately hospitalized. Home management, in our opinion, has no place in the treatment. It is neither in the interest of the patient nor the art of obstetrics to persist with therapeutic measures in the home that may prove futile. To send a woman to the hospital after she has been bleeding for several days and is already too weak for anything but the most conservative measures is literally to "close the door when the steed has escaped." Two-thirds of the fatal cases in our series were moribund on admission. All had been treated by temporizing in the home with no attempt to control the hemorrhage.

Occasions will and do arise where the initial bleeding is so severe as to render the preservation of the maternal life the only consideration. The patient cannot be moved, and whatever is necessary must be done on the spot and effectively. But such cases are the exception rather than the rule.

Blood Transfusion

The condition in which the patient is found at the time of admission should be the indication for temporary delay or immediate obstetric intervention. *The amount of blood loss prior to delivery is just as important as the type of delivery in deciding the final outcome of the case.* The patient's ability to withstand delivery should be based on general appearance, amount of blood loss, the blood pressure, and red blood count.

No method is safe in the serious cases without a prophylactic blood transfusion. It is of paramount importance to have the patient's blood typed immediately on admission to the hospital, the necessary donor at hand, and a blood transfusion administered as quickly as possible, either before or during the operative intervention. Promptness is imperative where transfusion is indicated. It is unnecessary to subject women who are in good condition and have not lost much blood to a transfusion.

When the blood is typed, an estimation of the hemoglobin and a count of the cellular contents should be made. The degree of anemia is an invaluable index for repetition of transfusions. It should be emphasized that, while preparing for a blood transfusion, infusions of 500 cubic centimeters of blood plasma will temporarily restore the blood volume, and is a very timely procedure.

Measures for preventing blood loss are a most essential part of any treatment of hemorrhage in pregnancy. Subsequent maternal mortality from hemorrhage, shock, and puerperal infection can be greatly reduced by this means.

---

*Presented before the Middle Tennessee Medical Association, Columbia, Tennessee, November 19, 1942.

†From the Department of Obstetrics and Gynecology, Vanderbilt University School of Medicine.

Diagnosis

In most instances a provisional diagnosis can be made from a history of painless bleeding alone, but hemorrhage should not be the sole criterion. It is merely the evidence of danger. *Since the details of the management will depend not only on the type of placenta previa, but on the condition of the cervix as well, the diagnosis should be established in the majority of cases by a careful vaginal examination.* Without a correct diagnosis, there can be no intelligent treatment.

No manipulation should be undertaken, however, until every provision has been made for the control of bleeding and for the immediate termination of pregnancy by the vaginal or abdominal route. If there is evidence of severe blood loss, one should transfuse before any manipulation is attempted. If not, sterile vaginal examination is performed and transfusion is done as the need becomes evident during treatment. *It is most important and cannot be too strongly emphasized that vaginal examination to confirm the diagnosis should not be attempted until everything is in readiness for delivery.*

We believe that only by vaginal examination under the above conditions can one arrive at an intelligent opinion with any degree of certainty. If no evidence of placenta previa is found, we look elsewhere for the cause of the bleeding.

There is a deplorable tendency for some of our obstetricians to rely too much on the X-ray. No doubt it adds to the scientific management of the case, but unless fully understood and correctly interpreted X-ray may lead us astray. To perform a Caesarean section in suspected placenta previa on the evidence furnished by the X-ray alone is usually bad obstetrics. As Doctor DeLee so aptly expressed it: "We must remember that we still have fingers and brains."

X-ray has contributed much to the progress of obstetrics. As an aid to the determination of fetal position, the recognition of fetal abnormalities, and the determination of the size and shape of the pelvis, the X-ray has been invaluable. But the use of X-ray in the diagnosis of placenta previa has not furnished conclusive evidence in our hands, and we are unwilling to depend on it for positive information to perform a Caesarean section. We believe with Arnell that every possible clinical recourse should be exhausted before one resorts to expensive, uncertain laboratory examinations for diagnosis. It should be borne in mind that "the refinements of diagnostic aids carry with them a refinement of error."

Termination of Pregnancy

After the patient has been properly prepared and the diagnosis established, our attention should be directed toward the termination of pregnancy. In selecting the method of delivery, proper consideration should be given to (1) the condition of the patient (blood loss, shock, etc.); (2) the type of placenta previa; (3) the state of the cervix; (4) parity; (5) viability of the child; and (6) the experience and capability of the practitioner.

Each case should be individualized. *The practitioner should select that procedure which will best suit his experience and capability rather than rely on routine methods and statistics of others.* The method which may be appropriate for the expert in an ideal hospital environment may not be the best procedure for the man who only occasionally attends a patient with placenta previa. Whatever course is adopted, the maternal life is the first consideration.

During the past ten years a careful study was made of all cases of placenta previa that occurred in the obstetrical departments of the Nashville General Hospital, Vanderbilt University Hospital, and St. Thomas Hospital. During this period 137 cases of placenta previa occurred in 16,886 deliveries—an incidence of one in 123. There were seventy-seven cases of marginal placenta previa, twenty-six lateral, and thirty-four of the central type.

In this discussion the term lateral is used when the placenta covers only a part of the os; marginal when it does not cover the os at all; and central when the placenta covers the os completely. It is obvious that the relation of the placenta to the internal os varies with the degree of dilatation. The more the placenta encroaches on the lower uterine segment in the direction of the in-

CHART 1
SPONTANEOUS LABOR
Seventeen Cases—16.8 Per Cent

Method of Delivery	No. of Cases	Fetal Mortality			Total	Per Cent
		Marginal	Central	Lateral		
Spontaneous	5	0	0	1	1	20
Breech	5	3	2	0	5	100
Forceps	3	0	0	0	0	
Version	2	0	0	0	0	
Braxton Hicks	1	0	1	0	1	100
Accouchement Force	1	1	0	0	1	100
Gross Mortality		4	3	1	8	47
Nonviable		1	0	1	2	25
Dead on Admission		1	1	0	2	25
Corrected Mortality		2	2	0	4	23.5

ternal os, the greater is the risk to both mother and fetus.

METHOD OF DELIVERY

Vaginal Delivery.—One hundred one patients in this series, or 73.7 per cent, were delivered by the vaginal route. Twenty-three were primiparae and seventy-eight were multiparae. There were sixty-seven cases of marginal, twenty-four lateral, and ten central placenta previas. There were four maternal deaths, or 3.9 per cent. Two of these patients were moribund on admission and two were in good condition.

The gross fetal mortality was fifty-one, or 50.4 per cent. However, there were twenty-three nonviable infants in this group and four infants were dead on admission. The corrected fetal mortality was twenty-four, or 23.7 per cent.

Spontaneous Labor.—Seventeen patients, or 16.8 per cent, were in labor on admission. Of these, five delivered spontaneously, five were delivered by breech extraction, three by forceps, two by version, one by Braxton Hicks' version, and one by accouchement force. There were eight fetal deaths, or a gross fetal mortality of forty-seven per cent. Two infants were nonviable and two were dead on admission. The corrected fetal mortality was 23.5 per cent.

There were two maternal deaths—one accouchement force and one Braxton Hicks' version. These deaths will be discussed later.

Artificial Rupture of the Membranes.—Pregnancy was terminated in thirty-six cases, or 35.6 per cent, by artificial rupture of the membranes. Nine were primiparae and twenty-seven were multiparae. There were twenty-four marginal, nine lateral, and three central placenta previas.

Twenty-one, or 58.3 per cent, delivered spontaneously, with four fetal deaths, or a mortality of nineteen per cent. Six, or 16.6 per cent, were delivered by forceps, with two fetal deaths, or a mortality of thirty-three per cent. Seven, or 19.4 per cent, were delivered by version, with five fetal deaths, or a mortality of 71.4 per cent. Two, or 5.5 per cent, were delivered by breech extraction, with one fetal death, or a mortality of fifty per cent.

There were twelve fetal deaths, or a gross mortality of thirty-three per cent. Four

CHART 2
ARTIFICIAL RUPTURE OF MEMBRANES
Thirty-Six Cases—35.6 Per Cent

Method of Delivery	No. of Cases	Fetal Mortality			Total	Per Cent
		Marginal	Central	Lateral		
Spontaneous	21	2	0	2	4	19
Forceps	6	1	1	0	2	33
Version	7	4	1	0	5	71.4
Breech	2	0	0	1	1	50
Gross Mortality		7	2	3	12	33
Nonviable		2	1	1	4	33
Dead on Admission		1	1	0	2	16.6
Corrected Mortality		4	0	2	6	16.6

infants, or thirty-three per cent, were nonviable, and two, or 16.6 per cent, were dead on admission. The corrected fetal mortality was six, or 16.6 per cent.

There were no maternal deaths in this group.

Voorhees Bag.—The Voorhees bag was used in forty-eight cases, or 47.5 per cent. Nine were primiparae and thirty-nine multiparae. There were thirty-three marginal, ten lateral, and five central placenta previas.

Twenty-one, or 43.7 per cent, delivered spontaneously. There was one maternal death and twelve fetal deaths, a mortality of 1.2 per cent and 57.1 per cent, respectively. Fifteen, or 31.2 per cent, were delivered by internal podalic version, with eleven fetal deaths, or a mortality of 73.3 per cent. Six, or 12.4 per cent, were delivered by forceps, with three fetal deaths, or a mortality of fifty per cent. There was one maternal death. Six, or 12.4 per cent, were delivered by breech extraction, with five fetal deaths, or a mortality of 83.3 per cent.

The gross fetal mortality for this group was thirty-one, or 64.5 per cent. Of these thirty-one deaths, seventeen, or 54.8 per cent, were nonviable and one infant was dead on admission. The corrected fetal mortality was twenty-seven per cent.

CHART 3
VOORHEES BAG
Forty-Eight Cases—47.5 Per Cent

Method of Delivery	*No. of Cases*	*Fetal Mortality*				
		Marginal	*Central*	*Lateral*	*Total*	*Per Cent*
Spontaneous	21	10	0	2	12	57.1
Version	15	5	3	3	11	73.3
Forceps	6	2	1	0	3	50
Breech	6	2	1	2	5	83.3
Gross Mortality		19	5	7	31	64.5
Nonviable		12	1	4	17	54.8
Dead on Admission		0	1	0	1	3.2
Corrected Mortality		7	3	3	13	27

COMMENT

Our study indicates that simple rupture of the membranes in certain cases of lateral and marginal placenta previa is a satisfactory method of controlling hemorrhage and inducing labor. It is particularly adapted for those patients admitted in good condition, and the cervix showing some dilatation. If labor does not ensue in a reasonable length of time, small doses of pituitrin will usually expedite labor with every expectance of a spontaneous or simple low forceps delivery. But, in the event bleeding is not controlled, the careful introduction of a number four or five Voorhees bag, intraovularly, will effectively control hemorrhage, initiate labor, and dilate the cervix.

Occasionally, traction may be applied to the bag, either manually or by a weight suspended over the end of the bed. Little, if any, hemorrhage will occur if the bag is allowed to be expelled spontaneously, or is removed as it comes through the vulva outlet, for usually the presenting part follows through behind the bag and effectively controls hemorrhage. In properly selected cases, where the baby is not viable, or has already succumbed, *it is the procedure of choice.* If spontaneous delivery is not evident, delivery may be accomplished by either forceps or internal podalic version.

Braxton Hicks' version, in our opinion, is rarely, if ever, indicated. Internal podalic version, when dilatation is complete, may be difficult; but when version is performed through a cervix only sufficiently dilated to admit two fingers, it is not only a difficult operation, but an exceedingly dangerous one as well. We are of the opinion that either rupture of the membranes or the use of the bag is much less dangerous to the mother than the use of Braxton Hicks' version.

Accouchement force is only mentioned to be condemned. It is exceedingly dangerous and has no place in the treatment of placenta previa.

Management of the Third Stage

One should realize that the completion of the second stage of labor does not spell security. If there is no bleeding following the birth of the child, the placenta should be allowed to separate spontaneously. If there is evidence of bleeding, a careful manual removal of the placenta should be done. In either case pituitrin or ergotrate should be administered intramuscularly or intravenously. If bleeding then continues, the uterus should be immediately packed.

In this series only five cases required active treatment, and in these the placenta was removed manually.

The important points are, first, *to conserve blood in an already depleted patient, and, second, to be on the alert for further hemorrhage.* If recognized early and managed properly, it is rarely of serious consequence.

Caesarean Section

Thirty-six cases, or 26.2 per cent, were delivered by the abdominal route. There were twelve primiparae and twenty-four multiparae. Twenty-four were central, ten were marginal, and two were lateral placenta previas. Classical section was used in twenty-two cases and the low cervical in fourteen cases.

The maternal mortality was five, or 13.8 per cent. Three of the fatal cases were moribund when admitted and two were in good condition. Two deaths were due to shock and hemorrhage, two to sepsis, and one to pneumonia.

The gross fetal mortality was ten, or 27.7 per cent. Seven infants were premature, one was nonviable, and three were dead on admission. The corrected fetal motality was six, or 16.6 per cent. Six infants were stillborn and there were four neonatal deaths.

CHART 4
Caesarean Section

	Central	*Marginal*	*Lateral*	*Total*	*Per Cent*
Total Cases	24	10	2	36	26.2
Maternal Mortality	5	0	0	5	13.8
Fetal Mortality	7	2	1	10	27.7
Prematures	3	3	1	7	19.4
Nonviable	1	0	0	1	10
Dead on Admission	3	0	0	3	30
Corrected Fetal Mortality	3	2	1	6	16.6

Comment

There is a growing tendency in the treatment of placenta previa to resort more and more to Caesarean section. I am in complete agreement with this tendency, provided it is recognized that *section is not to be regarded as a routine treatment for all cases*, but to be performed only for certain *definite indications*. What these indications are cannot be laid down arbitrarily. They can only be determined in the *individual case* by one who is *experienced* in all the *available methods of treatment*.

This study seems to indicate that Caesarean section is the procedure of choice in all types of placenta previa where the cervix is closed, the infant alive, or is viable. Likewise, in most cases of placenta previa centralis, regardless of the condition of the cervix, Caesarean section will give the best results for both mother and baby.

We must keep in mind, however, that no single operative course can be followed in every case. *If the infant has already succumbed, or is nonviable, Caesarean section is often no better for the mother than delivery by the vaginal route.* If the infant was the only consideration, there would be no doubt that Caesarean section would be the procedure of choice in practically all cases if pregnancy had advanced beyond the thirty-second week.

The relative merits of the classical and low cervical Caesarean section must be determined by individual opinion of the operator.

Fetal Mortality

The gross fetal mortality for the 137 cases was sixty-one, or 44.6 per cent. In

seven instances the infants were dead on admission. Twenty-four were nonviable, and in seventeen prematurity was a factor in determining the final outcome. The corrected fetal mortality was thirty, or 21.1 per cent.

In the 101 infants delivered by the vaginal route, fifty-one, or 50.4 per cent, of the babies were lost. Twenty-three were nonviable and seven were premature. In four instances the infants were dead on admission. The corrected fetal mortality was twenty-four, or 23.7 per cent. In the infants delivered by Caesarean section, the gross fetal mortality was ten, or 27.7 per cent. Of the thirty-six infants delivered by this method, one was nonviable and three were dead on admission. The corrected fetal mortality was 16.6 per cent. It is thus seen that placenta previa carries an inevitable fetal mortality. In many instances the infants had already succumbed or were nonviable. Others were premature with only a slight chance of survival.

The condition of the baby must always be kept in mind in deciding on the method of delivery, and the procedure which assures a living baby and at the same time safeguards the mother's life is certainly the procedure of choice.

CHART 5
Total Fetal Mortality

	Vaginal Delivery					*Caesarean*					
	Marginal	*Central*	*Lateral*	*Total*	*Per Cent*	*Marginal*	*Central*	*Lateral*	*Total*	*Per Cent*	*Total Mortality %*
Number of Cases	67	10	24	101	73.7	10	24	2	36	26.2	100
Stillbirths	30	10	11	51	50.4	2	7	1	10	27.2	44.6
Nonviable	13	3	7	23	22.7	0	1	0	1	2.7	17.5
Dead on Admission	2	2	0	4	3.9	0	3	0	3	8.3	5.1
Corrected Mortality	15	5	4	24	23.7	2	3	1	6	16.6	21.1

Maternal Mortality

The total mortality in 137 cases was nine, or 6.5 per cent. Seven, or 77.7 per cent, occurred in the central type of previa. The remaining two cases occurred in the marginal type.

The condition of the patient when first seen is a very important factor in the mortality. Six, or 66.6 per cent, of the fatal cases were moribund on admission. All had been treated by temporizing in the home, with no attempt to control the hemorrhage, which strongly suggests that *the management of these cases and not the type of delivery per se* was responsible for the fatal results.

Five, or fifty-five per cent, of the fatal cases were delivered by Caesarean section. Three died of sepsis and two of shock and hemorrhage and one of pneumonia. Four, or forty-five per cent, were delivered by the vaginal route, two died of sepsis and two shock and hemorrhage. The maternal mortality was 13.8 per cent in the Caesarean section series, and 3.9 per cent in the vaginal delivery. Thus, it would seem that vaginal delivery is safer for the mother, but we believe the higher mortality in the Caesarean section group was due more to *poor judgment in selecting this method of delivery than to the operation.*

We must always keep in mind that the ultimate prognosis in any series of cases will depend largely on the early recognition and the proper management of the case prior to delivery. The selection of a proper method of delivery for each individual case will give better results than the routine use of any one method.

Summary

1. Placenta previa carries an inevitable high fetal mortality. In this series the gross fetal mortality was 44.6 per cent; the corrected mortality, 21.1 per cent.

2. The maternal mortality was nine, or 6.5 per cent. The maternal mortality can be reduced if proper attention is given to certain fundamental procedures. First, all cases of painless bleeding in the last trimester of pregnancy should be immediately hospitalized. Temporizing in the home is dangerous and was responsible for 66.6 per

CHART 6
MATERNAL MORTALITY

Method of Delivery	*Cases*	*Mortality*	*Per Cent*	*Cause*
Caesarean Section	36	5	13 8	2 Shock and Hemorrhage 2 Sepsis 1 Pneumonia
Spontaneous Labor (Braxton Hicks (Accouchement Force	17	2	11 7	1 Sepsis 1 Shock and Hemorrhage
Artificial Rupture of Membranes	36	0		
Voorhees Bag (Precipitate Delivery (Low Forceps	48	2	4 1	1 Sepsis 1 Shock and Hemorrhage

CHART 7
SUMMARY OF MATERNAL MORTALITY

Case	*Type Previa*	*Age*	*Para*	*Weeks of Gestation*	*Method of Delivery*	*Cause Death*	*Time Death*	*Criticism*
1	Central	34	4	40	Classical section	Sepsis	6 day	Temporizing in home 6 weeks, 3 hemorrbages, packed, poor condition. No transfusion before, 3 after. Baby O.K.
2	Central	23	0	40	Low section	Sepsis	6 day	Good condition. Transfusion before and after Moderate bemorrbage after delivery. Baby O.K. No comment.
3	Central	22	3	36	Classical section	Sepsis	6 day	Moribund, baby dead. Transfusion before and after delivery. Section not indicated.
4	Central	30	4	34	Classical section	Pneumonia	5 day	Admitted in good condition. Baby O.K. 2 transfusions. No comment
5	Central	36	6	32	Classical section	Shock and hemorrbage	12 bours	Moribund. Temporizing. Baby dead. Profuse hemorrbage before. 4 F dilated. Late transfusion. Section not indicated.
6	Central	37	6	36	Bag induction Low forceps	Sbock and bemorrbage	5½ hours	Temporizing in bome 4 days. Packed. Moribund, baby dead. Transfusion before and after delivery.
7	Central	36	10	30	Membranes ruptured spontaneously. 2½ F dilated Braxton Hicks	Sepsis	9 day	Moribund. Baby dead. Temporizing 24 bours. 7 transfusions before and 4 after delivery.
8	Marginal	31	4	32	Bag induction Precipitate	Sepsis	11 day	Admitted good condition. Baby dead. 4 transfusions after delivery. No comment.
9	Marginal	32	4	40	Membranes ruptured artificially. Accoucbement force Mid forceps	Sbock and bemorrbage	On table	Moribund. Baby dead. No transfusions. Against all rules.

cent of the maternal deaths in this series. Secondly, there should be replacement of blood loss as quickly as possible.

Blood transfusions before, during, and after delivery are of paramount importance in the reduction of maternal mortality. And third, an accurate diagnosis should be established. Diagnosis should be confirmed by a careful vaginal examination, but no manipulation should be attempted until everything is in readiness for the immediate termination of pregnancy. The use of the X-ray in the diagnosis of placenta previa has not furnished conclusive evidence in our hands, and we are unwilling to depend on it for positive information.

3. The condition of the mother, the type of placenta previa, and the condition of the cervix should determine the method of delivery for each individual case. No single operative procedure will be successful in all cases.

4. Caesarean section is the procedure of choice in all types of placenta previa when the cervix is closed, and the infant is alive or viable. In most cases of placenta previa centralis, regardless of the condition of the cervix, Caesarean section will give the best results for both mother and baby.

5. Vaginal delivery should be restricted to those cases of the marginal and lateral types of placenta previa with some dilata-

tion of the cervix and the mother in good condition. Artificial rupture of the membranes will give favorable results for the mother and baby in properly selected cases. In the event bleeding is not controlled, the use of the Voorhees bag will effectively control hemorrhage, initiate labor, and dilate the cervix. After the bleeding has been controlled and labor initiated, spontaneous delivery may be awaited, or delivery accomplished by low forceps or version. Braxton Hicks' version and accouchement force are exceedingly dangerous and rarely, if ever, indicated.

6. And finally, we must always keep in mind that the ultimate prognosis in any series of cases will depend largely on *the early recognition and proper management of the case prior to delivery.* The selection of a proper method of delivery for each individual case will give better results than the routine use of any one method.

BIBLIOGRAPHY

1. Arnell, Rupert E., and Guerriero, Wm. F. American Journal of Obstetrics and Gynecology, 39: 32, 1940.

2. Bill, Arthur. American Journal of Obstetrics and Gynecology, 14: 523, 1927.

3. Davis, M. E. American Journal of Obstetrics and Gynecology, 32: 518, 1936.

4. Siegel, Isadore. American Journal of Obstetrics and Gynecology, 39: 301, 1940.

5. Siegel, Isadore. American Journal of Obstetrics and Gynecology, 22: 110, 1931.

SENATE BILL 1161

Senate Bill 1161 was introduced in the Senate on June 3, 1943, by Senator Robert F. Wagner of New York and Senator James Murray of Montana, and is defined as a bill:

To provide for the general welfare; to alleviate the economic hazards of old age, premature death, disability, sickness, unemployment, and dependency; to amend and extend the provisions of the Social Security Act; to establish a Unified National Social Insurance System; to extend the coverage, and to protect and extend the social security rights of individuals in the military service; to provide insurance benefits for workers permanently disabled; to establish a federal system of unemployment compensation, temporary disability, and maternity benefits; to establish a national system of public employment offices; to establish a federal system of medical and hospitalization benefits; to encourage and aid the advancement of knowledge and skill in the provisions of health services and in the prevention of sickness, disability, and premature death; to enable the several states to make more adequate provision for the needy aged, the blind, dependent children, and other needy persons; to enable the states to establish and maintain a comprehensive public assistance program; and to amend the Internal Revenue Code.

The following statement with reference to this bill has been prepared by the National Physicians Committee and is reproduced in the JOURNAL for the information of the membership with the consent of the National Physicians Committee.

FOREWORD

On June 3, 1943, Senator Robert F. Wagner of New York—for himself and Senator James Murray of Montana—introduced in the Senate, Bill 1161.

If the recommendations are enacted into law, they will destroy the private practice of medicine in the United States.

The definition of purposes is couched in the language of the true humanitarian. The principles enunciated as a guide to administration are sound and ethical. The actual motivations need not be discussed. The facts speak for themselves. The proposals are of such magnitude and of such sinister menace that, practically, they are incomprehensible to an American.

The processes proposed and the mechanisms indicated are designed to act as the catalyst in transforming a rapidly expanding federal bureaucracy into an all-powerful totalitarian state control. Human rights as opposed to state slavery is the issue.

The accompanying treatise is confined to the medical and hospitalization provisions of the proposed legislation. The general implications are incomparably broader. Unless a tidal wave of protest forewarns the sponsors, this bill or similar proposals will be enacted into law.

For too long, a semi-complacent medical profession, too proud really to protest, too overworked and overburdened with war responsibilities to give adequate consideration to basic problems, has contented itself with the sophistry "It can't happen here."

It is happening—now. Wartime fervor and preoccupation and wartime confusion are being used to obscure the true meaning of the moves. The issue is being forced. The settlement will be final. Doctors—informed—understanding—unified—can be the deciding factor in this final determination.

Herein an attempt is made to reduce to comprehensible terms the actual meaning of these incredible proposals. Appraise the facts—reach your own conclusions. Under conditions as they now exist, you have a moral and a legal right to them. Tomorrow? Tomorrow is another day.

TOTALITARIAN MEDICINE IN THE UNITED STATES—SENATE BILL 1161

Senate Bill 1161 makes provision for *free* general medical, special medical, laboratory, and hospitalization benefits for more than one hundred ten million people in the United States.

It proposes placing in the hands of one man—the Surgeon General of the Public Health Service—the power and authority—

1. To hire doctors and establish rates of pay—possibly for all doctors;

2. To establish fee schedules for services;
3. To establish qualifications for specialists;
4. To determine the number of individuals for whom any physician may provide service;
5. To determine arbitrarily what hospitals or clinics may provide service for patients.

The provisions are so sweeping that, if enacted into law, the entire system of American medical care would be destroyed. Immediately following are pertinent paragraphs of the bill which create the machinery and provide the funds for these truly revolutionary procedures.

The bill provides for the establishment of a "Unified Social Insurance System." It provides for tax payments from and insurance benefits for:

a. Practically every employed person in the United States.
b. Every self-employed person.

It is estimated that these provisions of the bill would add approximately 25,000,000 persons to the 37,000,000 now carrying social security cards.

The bill provides that:

a. Sec. 960—Every employer shall pay a tax on wages paid to individuals (up to $3,000 per year) of 6%
b. Sec. 961—Every employee shall pay a tax, deducted from wages on earned income, up to $3,000 per year, of 6%

Total from pay rolls..... 12%

c. Sec. 963—Every self-employed individual shall pay a tax on the market value of his services up to $3,000 per year, of..... 7%
d. Sec. 962—Federal, state, and municipal employees (under certain conditions) shall pay a tax of 3½%

It has been estimated by the Treasury Department that, broadening the base of Social Security taxpayers and beneficiaries, as above outlined—with existing rates (total 5%) would raise $5,000,000,000 of revenue annually. On this basis the total annual revenue from Bill 1161 rates would be Twelve Billion Dollars ($12,000,000,000).

The bill provides (Section 969): the establishment of a trust fund to be known as "Federal Social Insurance Trust Fund." Into this fund all Social Security taxes would be paid—$12,000,000,000 annually.

The bill provides (Section 913):

a. There is hereby established within the trust fund a separate account to be known as "The Medical Care and Hospitalization Account";
b. The managing trustee shall credit to this account—
   1. One-fourth of the contributions paid, in accordance with sections 960 and 961, respectively, of this Act.
   2. Three-sevenths of the contributions paid, in accordance with Sections 963, 964, and 965, respectively, of this Act.

In such manner, on the basis of the above estimates, a minimum of Three Billion Dollars ($3,000,000,000) each year would be transferred from the trust fund to the medical care and hospitalization account.

The bill provides (Section 901): that (a) every insured individual and (b) every dependent entitled to benefits shall be entitled to receive general medical, special medical, laboratory, and hospitalization benefits. Initially thirty days of hospitalization is provided. If funds are available this can be increased to ninety days each year.

Administration

The bill provides (Section 903):

a. The Surgeon General of the Public Health Service is hereby authorized and directed to take all necessary and practical steps to arrange for the availability of the benefits provided under this title.
b. In carrying out the duties imposed upon him by subsection (a) of this section, the Surgeon General is hereby authorized to negotiate and periodically to renegotiate agreements or cooperative working arrangements with appropriate agencies of the United States, or of any state or po-

litical subdivisions thereof, and with other appropriate public agencies, and with private persons or groups of persons, to utilize their services and facilities and to pay fair, reasonable, and equitable compensation for such services or facilities, and for the trust fund to receive reimbursements for services rendered with respect to individuals in circumstances under which benefits are not authorized under this title, and to negotiate and periodically to renegotiate agreements or cooperative working arrangements for the purchase or availability of supplies and commodities necessary for the benefits provided under this title; and, after approval by the Social Security Board, to enter contracts for such services, facilities, supplies, and commodities. * * *

c. The Surgeon General shall periodically notify the board of obligations incurred under contracts entered into by him in accordance with the provisions of this section and to whom such obligations obtain. Thereupon, the board shall authorize and certify disbursements from the trust fund to meet such obligations, and such certified disbursements shall be paid from the trust fund.

The bill provides (Section 904): There is hereby established a National Advisory Medical and Hospital Council, to consist of the Surgeon General and sixteen members to be appointed by the Surgeon General.

This council has no authority. The Surgeon General selects and appoints the members. It can advise. All authority and power are vested in the Surgeon General.

The bill provides (Section 905):

1. Any physician qualified by a state * * * can furnish medical service in accordance with such rules and regulations as may be prescribed (by the Surgeon General);
2. Every individual * * * shall be permitted to select his own doctor or to change such selection in accordance with such rules and regulations as may be prescribed (by the Surgeon General);
3. The Surgeon General shall publish the names of general practitioners who have agreed to furnish service;
4. Services which shall be deemed to be specialist services shall be those so designated by the Surgeon General. * * *
5. General practitioners must recommend services of specialists.
7. Payments to physicians may be made—
   a. According to a fee schedule approved by the Surgeon General;
   b. On a per capita basis—the amount being according to the number of individuals on physicians' lists;
   c. On a salary basis, whole or part time;
   d. A combination or modification of these bases, as approved by the Surgeon General.
8. Specialists may be paid on the basis of salary (whole or part time) per session, fee for service, per capita or other basis or combinations.
10. The Surgeon General may prescribe maximum number of individuals for whom any physician can provide service.
11. The Surgeon General may distribute the available patients among the available doctors on a pro rata basis.
12. In each area the provision of general medical benefits for all individuals entitled to such benefits shall be a collective responsibility of all qualified general practitioners in the area who have undertaken to receive such benefit.

Hospitals

The bill provides (Section 907):

a. The Surgeon General shall publish a list of institutions found by him to be participating hospitals.
(The term "participating hospital" means an institution found by the Surgeon General to afford professional service, personnel, and equipment adequate to promote the health and safety of individuals customarily

hospitalized in such institutions and to have procedures for the making of such reports and certificates as the Surgeon General and the Social Security Board may from time to time require. * * *

(The term "hospitalization benefit" means an amount, as determined by the Surgeon General after consultation with the council and after approval by the Social Security Board; not less than $3.00 and not more than $6.00 for each day of hospitalization, not in excess of thirty days, which an individual has had in a period of hospitalization; and not less than $1.50 and not more than $4.00 for each day of hospitalization in excess of thirty in a period of hospitalization; and not less than $1.50 and not more than $3.00 for each day of care in an institution for the care of the chronic sick. * * *)

Summation

This is the method—clause by clause—by which sole responsibility for the medical care and hospitalization of more than 110,000,000 people is placed on one man, the Surgeon General of the Public Health Service.

In such manner—step by step—section by section—is created the machinery to place in the hands of one man, the Surgeon General of the Public Health Service, the expenditure of $3,000,000,000 annually.

Financial Aspects

How much is three billion dollars? What can be done with it? What can be accomplished? The potential can be understood only by comparisons.

For the ten-year period from 1924 to 1933, both years inclusive, the total revenue of the government of the United States, from all sources, was $35,412,944,412—or an annual average of $3,541,294,441.

For the five-year period beginning April 1, 1931, to March 31, 1935, the total revenues of the German government were $15,725,840,000. This represents an average total income at the rate of $3,145,168,000 per year.

In 1940 the total expenditures of the Japanese Empire were $1,999,773,180; $1,150,000 of this amount was appropriated to carry forward the China War. Nonwar expenditure totaled $849,773,180.

In 1938 the total expenditures of the prewar government of France for all purposes were $3,130,777,635.

Senate Bill 1161 provides for placing in the hands of one man a sum three times the amount of the normal nonwar expenditure of Japan and approximately equal to the prewar expenditure of the government of the French Republic.

Political Medicine

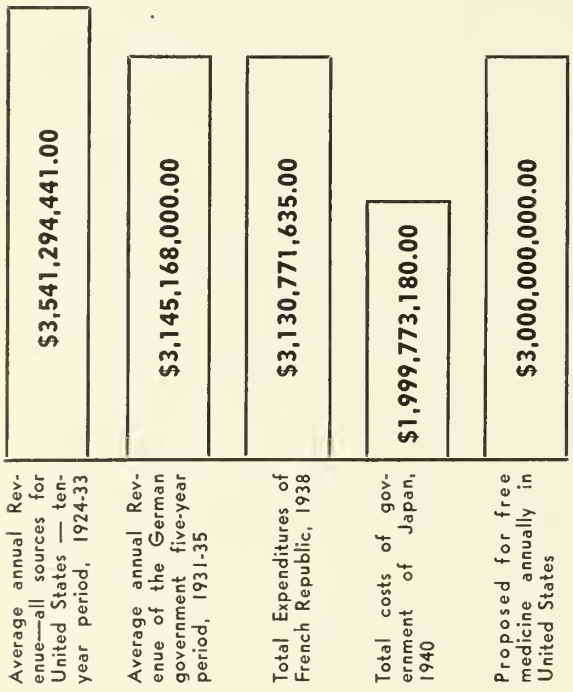
The bill, if enacted into law, would provide general medical and special medical care, laboratory tests, and hospitalization for approximately one hundred ten million people. The Surgeon General of the Public Health Service is authorized and instructed to make such services available.

What Could He Do?

It is estimated that, at the present time, there are in the United States, available for civilian practice, 120,000 effective physicians. With three billion dollars the Surgeon General could—

a.	Allocate 20% for administration costs..	$ 600,000,000.00
b.	Hire every effective physician in the United States at an average salary of $5,000 a year.....	600,000,000.00
c.	Buy every available bed in every non-government owned hospital (368,046) 365 days each year (134,336,790 hospital bed-days) at $5 per day	671,683,950.00
d.	Pay $2.50 per day for each and every government owned hospital bed (1,051,781) 365 days in the year (383,900,065 hospital bed-days).	959,750,162.50
e.	Spend for drugs and medicines	168,565,887.50
		$3,000,000,000.00

$3,000,000,000.00 Estimated for Free Medical Service in the United States Compared to Income and Expenditures of Governments.



Medical Education

The bill provides (Section 1111):

"For the purpose of encouraging and aiding the advancement and dissemination of knowledge and skill in providing benefits under this Act and in preventing illness, disability, and premature death, the Surgeon General is hereby authorized and directed to administer grants-in-aid to nonprofit institutions and agencies engaging in research or in undergraduate or postgraduate professional education.

"For the purpose of this subsection there shall be available, for each calendar year beginning with the calendar year 1944, an amount equal to one per centum of the total amount expended for benefits from the trust fund, exclusive of unemployment insurance benefits, or two per centum of the amount expended for benefits under Title IX after benefits under that title have been payable for not less than twelve months, whichever is the lesser, in the last preceding fiscal year.

"Such grants-in-aid, in such amounts and for payment at such times as are approved by the Surgeon General, shall be certified for payment by the Social Security Board to the managing trustee, who shall pay them from the trust fund to the designated institutions or agencies."

Assuming that out of the $3,000,000,000 —$600,000,000 is spent for administration and $2,400,000,000 is paid out in benefits—and that this measure is taken—the Surgeon General would have two per cent of thus sum or $48,000,000 each year, to spend for medical education and medical research.

What Could Be Done?

With the amount available, the Surgeon General could—

a. Assume the total costs of operating the 66 accredited medical colleges in the United States	$21,491,248
b. Subsidize 22,000 medical students to the extent of $700 per year for a period of four years	15,400,000
c. Spend for other research each year	11,108,752
	$48,000,000

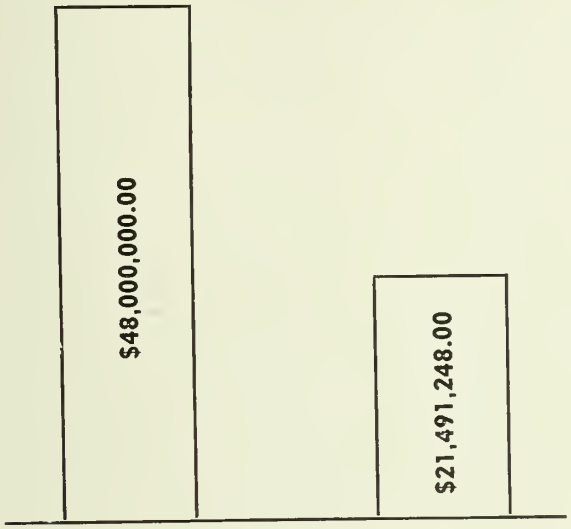
OR

a. Duplicate all existing medical teaching facilities	$22,000,000
b. Pay 20,000 additional medical students $700 per year during the period of training	14,000,000
c. Otherwise spend	12,000,000
	$48,000,000

Further Study for More Expenditures

After two years of operation, approximately, and presumably after all doctors have been subdued, all hospitals taken over, and the state control of medical education

Surgeon General's Research and Education Fund Annually (Estimated) $48,000,000 Compared to Total Costs of All Accredited Medical Colleges in the United States—1935-39—



Senate Bill S1161—Proposes to place in the hands of the Surgeon General to spend for Medical Education and Research $48,000,000 annually.

The average annual cost of operating all accredited medical colleges in the United States (66) 1935-39 was $21,491,248.

has been established, further efforts are to be made.

The bill provides (Section 912):

"The Surgeon General and the Social Security Board jointly shall have the duty of studying and making recommendations as to the most effective methods of providing dental, nursing, and other needed benefits not already provided under this title, and as to expected costs for such needed benefits and the desirable division of the costs between (1) the financial resources of the social insurance system and (2) payments to be required of beneficiaries receiving such benefits, and shall make reports with recommendations as to legislation on such benefits not later than two years after the effective date of this title."

The Surgeon General is to find a way to provide nursing service and dental care.

Conclusion

Under the American system, American medicine—American doctors—have developed the most effective and the most widely distributed medical care that has ever been provided for any comparable number of people anywhere at any time.

Freemen—with fearless minds—progressively provided a higher and higher quality of medical care. This better and better medical care has been continuously more widely distributed and made more generally available. Many of the great historical killing diseases have been conquered. Most of the most deadly of the others are being brought under control.

Plans are being made and steps are being taken to bring to every American more effective medicines and medical procedures than were ever before known or imagined.

State medicine—political control of medical service—always has meant, always will mean, for the mass of people medical care through and by physicians who are politically amenable rather than by those with superior abilities and skills.

For the doctor state medicine means abject slavery; the necessity of catering to the ward committeeman or the precinct captain rather than to the needs of the human beings who are his patients.

A Real Emergency

The doctors of the United States are faced with a real emergency. If they understand —if they are informed—and will inform their legislators and their patients, they will become the final deciding factor in the settlement of the issue.

There are two choices:

1. They can demand a continuation of the practice of medicine under the Christian concept of the sanctity of human personality — the American way—with continuing progress in the science of medicine and the art of medical practice; or
2. They can refuse to be concerned and refuse to assume their part of the responsibility. The result will be the sacrifice of their medical heritage—becoming mere pawns of politicians —the forfeiture of self-respect and inevitable deterioration.

The decision means freemen—or—slaves! Wake up, doctors of America!

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in four categories as follows: first, those who have been commissioned and are on duty; second, those who have been commissioned and are awaiting orders; third, those who have applied for a commission and are awaiting action by the proper authorities; fourth, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Chester	Hunter M. Steadman	Henderson
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Newton A. Cannon	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Dan C. Gary	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James W. Harrison	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Nathan P. Horner	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville
Davidson	Jas. A. Loveless	Nashville

*Deceased.

Davidson—J. P. Lowe—Nashville
Davidson—Sol Lowenstein—Nashville
Davidson—Jas. R. McMillan—Nashville
Davidson—Robt. H. Magruder—Nashville
Davidson—C. G. deGutierrez-Mahoney—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Melvin M. Simmons—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Hugh Amos—Old Hickory
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—James O. Barker—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Greene—John G. Zirkle—Greeneville
Hamblen—Robert A. Purvis—Morristown
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Walter Buckner, II.—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—Carl A. Hartung—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—E. F. McCall—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar
Hardeman—Wiley D. Lewis—Bolivar
Hardeman—M. J. Stewart—Whiteville

Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville
Hawkins—A. S. Yates—Rogersville
Haywood—Robert C. Berson—Brownsville
Henderson—R. M. Conger—Lexington
Henry—J. W. Didcoct—Paris
Henry—Arthur C. Dunlap—Paris
Henry—J. C. McKissick—Paris
Henry—Geo. H. McSwain—Paris
Hickman—Wm. L. Phillips—Centerville
Jefferson—William B. Malcolm—Dandridge
Jefferson—Frank L. Milligan—Jefferson City
Knox—A. J. Weber—Bearden
Knox—Malcolm F. Cobb—Concord
Knox—B. B. Mitchell—Fountain City
Knox—Charles M. Armstrong—Knoxville
Knox—Spencer Y. Bell—Knoxville
Knox—R. G. Brashear—Knoxville
Knox—A. M. Carr—Knoxville
Knox—E. E. Carrier—Knoxville
Knox—Jack Chesney—Knoxville
Knox—L. W. Chesney—Knoxville
Knox—H. S. Christian—Knoxville
Knox—H. E. Christenberry, Jr.—Knoxville
Knox—Sam M. Cooper—Knoxville
Knox—Sam P. Davidson—Knoxville
Knox—T. P. Day—Knoxville
Knox—W. A. DeSautelle—Knoxville
Knox—T. B. Drinnen—Knoxville
Knox—Richard N. Duffey—Knoxville
Knox—J. Gilbert Eblen—Knoxville
Knox—Jas. B. Ely—Knoxville
Knox—Frank Faulkner—Knoxville
Knox—Peter J. Flippin—Knoxville
Knox—Glenn D. Grubb—Knoxville
Knox—Geo. G. Henson—Knoxville
Knox—Oliver W. Hill, Jr.—Knoxville
Knox—C. R. Huffman—Knoxville
Knox—C. E. Irwin—Knoxville
Knox—Willard J. Irwin—Knoxville
Knox—H. H. Jenkins—Knoxville
Knox—J. O. Kennedy—Knoxville
Knox—A. H. Lancaster—Knoxville
Knox—R. P. Layman—Knoxville
Knox—J. H. Lesher—Knoxville
Knox—J. D. McCullough—Knoxville
Knox—Wm. T. McPeake—Knoxville
Knox—J. L. Montgomery—Knoxville
Knox—Wm. S. Muse—Knoxville
Knox—E. P. Nicely—Knoxville
Knox—Ralph Nichols—Knoxville
Knox—B. M. Overholt—Knoxville
Knox—Jos. B. Parker, Jr.—Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr.—Knoxville
Knox—Herschel Penn—Knoxville
Knox—Jarrell Penn—Knoxville
Knox—H. L. Pope—Knoxville
Knox—John S. Powers, Jr.—Knoxville
Knox—John A. Range—Knoxville
Knox—Jos. L. Raulston, Jr.—Knoxville
Knox—Hugh C. Reaves—Knoxville
Knox—J. W. Riggs—Knoxville
Knox—J. S. Ruffin, Jr.—Knoxville
Knox—J. H. Saffold—Knoxville
Knox—A. B. Shipley—Knoxville
Knox—P. D. Smith—Knoxville
Knox—J. M. Stockman—Knoxville
Knox—Geo. W. Tharp—Knoxville
Knox—Phil Thomas—Knoxville
Knox—Fred West—Knoxville
Knox—Jacob M. Williams—Knoxville
Knox—Leon J. Willien—Knoxville
Lake—W. T. Rainey—Tiptonville
Lauderdale—J. H. Nunn—Ripley
Lauderdale—W. Val Sanford—Ripley
Lawrence—L. C. Harris, Jr.—Lawrenceburg
Lincoln—R. E. McCown—Fayetteville
Lincoln—Ben H. Marshall—Fayetteville
Lincoln—M. C. Woodfin—Fayetteville
Lincoln—E. S. Leek—Petersburg
Loudon—F. E. Hufstedler—Lenoir City
Loudon—Avery Leeper—Lenoir City
McMinn—S. B. McClary, Jr.—Etowah
McMinn—A. W. Reeser—Athens
McMinn—Lester H. Shields—Athens
McNairy—T. N. Humphrey—Selmer
McNairy—H. O. Mason—Adamsville
Madison—L. D. Farragut—Bemis
Madison—Roderick C. Webb—Bemis
Madison—Everett Archer—Jackson
Madison—C. H. Brown—Jackson
Madison—W. B. Camp—Jackson
Madison—J. E. Douglass—Jackson
Madison—R. S. Hellmann—Jackson
Madison—Frank A. Moore—Jackson
Madison—Roy M. Neudecker—Jackson
Madison—Carl Rogers—Jackson
Madison—A. R. Taylor—Jackson
Madison—J. R. Thompson, Jr.—Jackson
Madison—P. E. Wylie—Jackson
Madison—Stevens Byars—Mercer
Marshall—A. L. Cooper—Chapel Hill
Marshall—H. B. Disharoon—Lewisburg
Maury—W. N. Cook—Columbia
Maury—Robin Lyles—Columbia
Maury—J. B. Miller—Columbia
Maury—E. K. Provost—Columbia
Monroe—D. F. Heuer, Jr.—Sweetwater
Monroe—R. M. Price—Sweetwater
Montgomery—J. A. Culbertson—Clarksville
Montgomery—John H. Ledbetter, Jr.—Clarksville
Montgomery—Phillip Lyle—Clarksville
Morgan—R. A. Steadman—Wartburg
Obion—Hal E. Bennett—Troy
Obion—Edward W. Barksdull—Union City
Obion—R. M. Darnall—Union City
Obion—R. G. Latimer, Jr.—Union City
Overton—H. B. Nevans—Livingston
Pickett—Floyd B. Hay—Byrdstown
Polk—Henry S. Harris—Benton
Polk—J. H. Lillard—Benton
Polk—H. H. Hyatt—Copperhill
Putnam—H. H. Taylor—Cookeville
Putnam—R. L. Akin—Monterey
Roane—L. A. Killeffer—Harriman
Roane—G. D. Schuessler—Oliver Springs
Roane—F. Davis Owings—Rockwood
Robertson—J. C. Lunderman—Orlinda

Robertson—W. P. Stone—Springfield
Rutherford—Harvey W. Carter—Murfreesboro
Rutherford—Thos. G. Gordon—Murfreesboro
Sevier—John A. Conroy—Newton, Mass.
Sevier—Charles E. Pack, Jr.—Sevierville
Sevier—R. M. Perry—Sevierville
Shelby—J. H. Adler—Memphis
Shelby—R. Roger Anderson—Memphis
Shelby—Chas. G. Andrews—Memphis
Shelby—J. M. Aste—Memphis
Shelby—Edward R. Atkinson—Memphis
Shelby—Chas H. Avent—Memphis
Shelby—J. C. Ayers—Memphis
Shelby—James M. Bethea—Memphis
Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—R. F. Bonner—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—W. T. Braun, Jr.—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—James H. Collins—Memphis
Shelby—John Kerr Crawford—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—W. F. Dobyns—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Harold Feinstein—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—Paul Hill Goodman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—James E. Holmes—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Wm. E. Hurt—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingram—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Richard King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Chas. K. Lewis—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Wm. M. Lovejoy—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Geo. E. Paullus, Jr.—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—G. S. Plog—Memphis
Shelby—Ira F. Porter—Memphis
Shelby—Hugh R. Raines—Memphis
Shelby—S. L. Raines—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Hal S. Rhea—Memphis
Shelby—Chas. G. Robinson—Memphis

Shelby—Wm. A. Runkle—Memphis
Shelby—P. B. Russell, Jr.—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—Bryant S. Swindoll—Memphis
Shelby—B. S. Taley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis
Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—Jack Viscofsky—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis
Shelby—J. E. Watson, Jr.—Memphis
Shelby—Julian K. Welch, Jr.—Memphis
Shelby—S. I. Wener—Memphis
Shelby—Horace G. Williams—Memphis
Shelby—W. L. Wilhelm—Memphis
Shelby—Harwell Wilson—Memphis
Shelby—John M. Wilson—Memphis
Shelby—J. E. Wilson—Memphis
Shelby—C. Frank Yates—Memphis
Sullivan—J. W. Erwin—Blountville
Sullivan—Tom Kuhnert—Bristol
Sullivan—John Marcy—Bristol
Sullivan—G. W. McCall—Bristol
Sullivan—B. W. Mongle—Bristol
Sullivan—L. B. Snapp, II—Bristol
Sullivan—F. L. Alloway—Kingsport
Sullivan—R. W. Asthalter—Kingsport
Sullivan—H. O. Bolling—Kingsport
Sullivan—R. H. Brown—Kingsport
Sullivan—H. S. Burem—Kingsport
Sullivan—W. C. Carreras—Kingsport
Sullivan—P. W. Cox—Kingsport
Sullivan—John B. Hamilton—Kingsport
Sullivan—R. B. Howard—Kingsport
Sullivan—K. R. Kiesau—Kingsport
Sullivan—M. D. Massengill, Jr.—Kingsport
Sullivan—J. F. Morton—Kingsport
Sullivan—R. G. Nichols—Kingsport
Sullivan—W. B. Payne—Kingsport
Sullivan—Raymond A. Steadman—Kingsport
Sumner—P. M. Huggins—Gallatin
Sumner—Benjamin A. Warren—Gallatin
Tipton—N. L. Hyatt—Covington
Tipton—J. S. Ruffin, Jr.—Covington
Tipton—O. J. Swisher—Covington
Unicoi—R. H. Harvey—Erwin
Unicoi—W. C. Humbert—Erwin
Unicoi—H. L. Monroe—Erwin
Union—Norman H. Rucker—Luttrell
Washington—C. M. Creech—Johnson City
Washington—H. B. Fuqua—Johnson City
Washington—C. S. Gresham—Johnson City
Washington—W. D. Hankins—Johnson City
Washington—Harry Myron, Jr.—Johnson City
Washington—W. L. Poole—Johnson City
Washington—W. G. Preas—Johnson City
Washington—Hugh F. Swingle—Johnson City
Washington—Charles P. Wofford—Johnson City
Washington—H. B. Cupp—Mountain Home
Washington—John Busey—Mountain Home
Washington—Ernest Marcus—Mountain Home
Weakley—Paul W. Wilson—Dresden
Weakley—Madison H. Buckley—Martin
Williamson—W. F. Roth, Jr.—Franklin
Wilson—O. R. Hill—Lebanon
Wilson—James McFarland, Jr.—Lebanon
Wilson—W. K. Tilley—Lebanon

DOCTORS WHO HAVE APPLIED AND WHOSE COMMISSIONS ARE PENDING

Anderson—J. L. Sergeant—Lake City
Campbell—C. E. Ausmus—Jellico
Davidson—S. W. Ballard—Nashville
Davidson—Theodore W. Davis—Nashville
Davidson—T. Emerson Simpkins—Nashville
Knox—E. M. Eddington—Knoxville
Knox—Wiley R. Smith—Knoxville
Knox—John Szewczyk—Knoxville
Lincoln—James V. McRady—Fayetteville
Shelby—M. W. Adams—Memphis
Shelby—L. L. Carter—Memphis
Shelby—Clyde V. Croswell—Memphis

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff—Clinton
Cannon—Carl E. Adams—Woodbury
Anderson—A. J. Butler—Clinton
Carter—John L. Chesnut—Elizabethton
Carter—E. T. Pearson—Elizabethton
Coffee—Wm. M. Minnis—Manchester
Davidson—E. E. Anderson—Donelson
Davidson—R. Z. Linney—Madison
Davidson—Joe E. Sutherland—Madison College
Davidson—J. J. Ashby—Nashville
Davidson—Edward H. Barksdale—Nashville
Davidson—Lynch D. Bennett—Nashville
Davidson—Randolph A. Cate—Nashville
Davidson—David W. Hailey—Nashville
Davidson—Andrew N. Hollabaugh—Nashville
Davidson—Thos. M. Jordan—Nashville
Davidson—J. K. Kaufman—Nashville
Davidson—Carl Kirchmaier—Nashville
Davidson—N. B. Morris—Nashville
Davidson—James C. Overall—Nashville
Davidson—James N. Owens—Nashville
Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville
Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—Trimble Sharber—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Herman Spitz—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville

Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Chas. W. Davis—Humboldt
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—John A. Brabson—Greeneville
Greene—Rae B. Gibson—Greeneville
Hamblen—M. J. Bellaire—Morristown
Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—H. P. Hewitt—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—John Moore—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Frank O. Nichols—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Montgomery—B. H. Webster—Clarksville
Morgan—Wm. E. Gallion—Oakdale
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Sevier—J. Myron Mittleman—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—H. E. Atherton—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—James T. Bridges—Memphis
Shelby—James M. Brackman—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Roland H. Myers—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Donald W. Oelker—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Leo F. Pierotti—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—R. O. Rychener—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—O. B. Stegall—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Shelby—John E. Whiteleather—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Washington—G. V. Stanton—Limestone
Wayne—Dexter L. Woods—Waynesboro
Weakley—R. W. Brandon, Jr.—Greenfield
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

JULY, 1943

EDITORIAL

"We must beware of trying to build a society in which nobody counts for anything except a politician or an official, a society where enterprise gains no reward, and thrift no privileges."

WINSTON CHURCHILL.

THE RECENT SESSION OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

The report of the delegates to the American Medical Association will carry a full statement of the business that was transacted by the House during the session, June 7-9, 1943, in Chicago.

One action was taken by the House to which reference should be made now. It concerns the creation of a Council on Medical Service and Public Relations.

A number of resolutions were presented touching in one way or another the subject of public relations on the part of the American Medical Association.

The reference committee on legislation and public relations, appointed by the Speaker, was composed of Drs. Thomas A. McGoldrick, chairman, New York; Edwin S. Hamilton, Illinois; Lloyd Noland, Alabama; Parke G. Smith, Ohio; and William R. Molony, Sr., California.

All these resolutions were referred by the Speaker to this reference committee.

The reference committee conducted hearings which were attended by a large number of delegates and officers of state associations. The committee then wrote a new resolution providing for the creation of a Council on Medical Service and Public Relations with duties defined as follows:

1. To make available facts, data, and medical opinions with respect to timely and adequate rendition of medical care to the American people.

2. To inform the constituent associations and component societies of proposed changes affecting medical care in the nations.

3. To inform constituent associations and component societies regarding the activities of the Council.

4. To investigate matters pertaining to the economic, social, and similar aspects of medical care for all the people.

5. To study and suggest means for the distribution of medical services to the public consistent with the principles adopted by the House of Delegates.

6. To develop and assist committees on medical service and public relations originating within the constituent associations and component societies of the American Medical Association.

The Council consists of ten members, six of which are to be elected by the House of Delegates after the first year and four members ex officio, as follows: the president, the immediate past president, the secretary, and a member of the Board of Trustees designated by the board serve as the four members ex officio.

The Board of Trustees appointed the following six members to serve for one year: Dr. Louis H. Bauer of Hempstead, Long Island; Dr. John H. Fitzgibbon of Portland, Oregon; Dr. Alfred W. Adson of Rochester, Minnesota; Dr. James R. McVay of Kansas City, Missouri; Dr. E. J. McCormick of

Toledo, Ohio; Dr. W. S. Leathers of Nashville, Tennessee. These, together with Brigadier General Fred W. Rankin, Dr. James E. Paullin of Atlanta, Georgia, Dr. Olin West of Chicago, and Dr. Roger I. Lee of Boston, compose the membership of this new Council.

There are many subjects which this Council will be called upon to consider in the near future. It should be of great value to the medical profession, to legislative bodies, and to the public in supplying information of value and in carrying out the other purposes of the Council.

Federal Legislation

A bill known as H. R. 2935 is pending in the Congress of the United States.

It carries an appropriation designed to provide obstetric care to the wives of soldiers of certain ranks.

The following language was inserted in the bill: "No part of any such appropriations shall be used to promulgate or carry out any instructions, orders or regulations which discriminate between persons licensed under state laws to practice obstetrics."

The purpose of this language obviously was to give chiropractors, osteopaths, and midwives, who are licensed to practice in a state, the privilege of practicing obstetrics on the wives of soldiers, and to receive compensation for such service by the federal government. This bill was passed by the House, but the above language has been deleted in the Senate. The bill is now in the hands of a conference committee. It is not known what will happen to it in the conference committee.

From a statement which appears in the House reference committee report on the bill, it is apparent that the subject of states' rights was raised and that some people raised the question of discrimination. The language referred to is as follows:

> "It is not the desire of the committee, of course, to permit the use of federal funds to break down safeguards against the practice of healing arts by improperly and inadequately trained persons, but the committee does believe that the state laws and standards constitute the necessary protection for the public."

From information we have received it seems that many congressmen and senators are convinced that federal and state administrators will establish standards of requirement which might eliminate chiropractors, osteopaths, naturopaths, and midwives from the privilege of receiving compensation for services to the wives of enlisted men.

It is obvious also that many of them are convinced that such action would constitute a *discrimination.*

Certainly it is not a discrimination on the part of anyone to require certain standards of qualifications. It is not a discrimination against an unqualified person to deny that person the right to teach in the public schools. It is not a discrimination against a chiropractor to deny him the right to practice medicine until he has qualified himself to do so.

In Tennessee the Legislature obviously and actually discriminated in favor of chiropractors, osteopaths, and naturopaths. The discrimination lies in the fact that the Legislature defeated the Basic Science Bill which had the purpose of establishing standards of education in the basic sciences to be applied to all forms of the healing art.

The naturopaths, osteopaths, and chiropractors were exempted from the provisions of the bill so long as they practice within their respective calling. Now, it is true that they allege discrimination when not allowed to practice all forms of the healing art.

There are incidents already in Tennessee in which a graduate of an inferior and unrecognized medical school obtains a license to practice naturopathy and then begins to yell "discrimination" if an attempt is made to limit his activities to the fields in which he is assumed to be qualified.

It is more than strange that the quality of medical services seems to be of no concern to legislators.

Yes, all the discrimination has been in favor of the unqualified practitioners. They obtain a license to practice one form of the

healing art with inferior educational qualifications and then yell "discrimination" the moment it is proposed that they practice within their particular field.

This incident serves to emphasize the importance of state standards to practice.

It surely is not out of place in this connection to make mention of the fact that our wounded soldiers are experiencing the lowest mortality rate ever experienced in a war. The news from every front is to the effect that they receive the best medical care that a supermedical skill can supply. These events are not accidents. They are the result of the efforts of organized medicine to establish high standards and to raise these standards when conditions permit.

Those who yell "discrimination" would destroy the standards which have yielded these results and thus destroy the benefits which the soldiers and civilians alike receive.

The Distinguished Service Award of the American Medical Association

The honor of receiving the Distinguished Service Award of the American Medical Association for the year 1943 was given to Dr. Elliott Proctor Joslin of Boston.

In addition to Doctor Joslin the following men have been so honored by the Association: Dr. Rudolph Matas in 1938, Dr. James B. Herrick in 1939, Dr. Chevalier Jackson in 1940, Dr. James Ewing in 1941, and Dr. Ludvig Hektoen in 1942.

It may be of interest to the membership in Tennessee to know that the idea of creating this award originated with a delegate from Tennessee. He embodied the idea in amendments to the constitution and by-laws of the Association and the House of Delegates adopted them in 1937. The delegate was made the first chairman of the Committee on Distinguished Service Award.

This feature of the annual meeting now creates wide interest. Prior to the year 1937 doctors who had achieved distinction in some particular line of medicine would be nominated for the office of president-elect of the Association and in many instances be defeated. The defeat might be heartbreaking, but it was logical and in the best interest of the organization for the reason that many men of distinction in a particular line or specialty are thoroughly unfamiliar with the organizational activities. Such men are entitled to every honor the profession can confer upon them without at the same time giving them a job they are unfamiliar with and which would be a burden to them. The profession now can honor these worthy Fellows without inflicting upon them the duties of an office.

Great care was exercised to make it impossible for this election ever to become involved in politics, and at the same time make it democratic from the ground up. The procedure that is followed in electing a Fellow to this honor is as follows: Any member of the Association may nominate anyone at any time whom he thinks worthy of the honor. The nomination is referred to the Committee on Distinguished Service Award. A member once nominated is always a nominee before the committee. The Committee on Distinguished Service Award selects from the list of nominees five regarded as most worthy. These five nominees are then submitted to the Board of Trustees. The Board of Trustees then selects three of the five regarded as most worthy, and the three names thus selected go before the House of Delegates and the nominee is elected by ballot.

It is obvious from the list of recipients that no mistake has been made.

It is unfortunately true that nominees have died while on the list of nominees eligible for consideration and the suggestion was made by a number of men that this honor should be conferred on a number of distinguished men of advanced years at one time. This suggestion was opposed by the author on the ground that it would cheapen the award at its very inception and the author's contention was supported. Your editor modestly but proudly admits that he was the author of this feature.

Postwar Planning

A number of individuals and agencies have concerned themselves with the postwar world. Postwar planning of various sorts is already being engaged in.

Whether one approves of postwar planning before the war is won is beside the question. The fact is that numbers of planners are already acting and it seemed to the Board of Trustees at the meeting in February that the American Medical Association should have a committee on postwar planning and proceeded to create one. It is composed of Dr. Roger I. Lee of Boston, chairman; Brigadier General Fred W. Rankin; Dr. Francis G. Blake, New Haven, Connecticut; Dr. James E. Paullin, Atlanta, Georgia; Dr. Harrison H. Shoulders, Nashville, Tennessee; Dr. Alan Gregg, medical director of the Rockefeller Foundation, New York; Captain William J. C. Agnew, United States Navy, Washington, D. C.; and Dr. Warren F. Draper, assistant Surgeon General, Public Health Service, Washington, D. C.

The House of Delegates of the American Medical Association, in the June session, took action to approve this step on the part of the board and to order that the committee be made permanent.

There is no doubt but many new problems will arise immediately the war is over. There is no doubt that a vast majority of these problems will touch medicine in some way. It is sincerely hoped that the committee will be in position to be of real service to the people in protecting their interests in their medical care problems.

Postgraduate Instruction in Surgical Diagnosis

About six months ago Dr. J. R. B. Branch of Macon, Georgia, began the course of instruction as outlined by the committee.

Mr. L. W. Kibler, field director, sends in the report of the two circuits that have been completed, and it is with pleasure that it is published.

Postgraduate Study

Many inquiries have come about the course in surgical diagnosis now in progress in the state. Physicians will be interested to know that Doctor Branch, the instructor, has just closed his second circuit, which completes instruction in eleven centers. The enrollments for this wartime period have been beyond expectations of the committee, as has likewise been the attendance on part of those enrolled. Doctors in civilian practice were never so busy and rushed. But their interest is shown in this excellent and informative course by Doctor Branch by the following table listing the average percentage of attendance for each of the centers. Unfortunately, army maneuvers the last half of his course at Camp Forrest kept away many of the 152 medical officers enrolled there in his course, and thus the *total* per cent of attendance was slightly reduced.

CIRCUIT I

Centers	*Enrollments*	*Avg. Pct. of Attendance*
Brownsville	12	92
Jackson	21	80
Selmer	12	83
Bolivar	15	83
Jackson (Colored)	13	94
Total	73	87

CIRCUIT II

Camp Forrest	152	21
Fayetteville	10	79
Pulaski	12	93
Columbia	17	88
Waynesboro	10	92
Franklin	11	85
Total	212	76

The committee gave Doctor Branch a few days' rest before opening the third circuit in Northeast Tennessee, for the number of consultations among the doctors in addition to his teaching has been unusually large. The third circuit will open with instruction in Greeneville, July 12; Johnson City, July 13; and Kingsport, July 14; Bristol, July 15; and Elizabethton, July 16. All lectures and clinics in each of these cities will occur in the evenings after dinner. The course has been arranged for the general profession. Specialists restricting their practice, however, have found Doctor Branch's course of interest and are likewise registering in the groups.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

The address of doctors from Tennessee in foreign service will not be published in this column in the future by reason of a request from the Office of Censorship.

Respectfully,

EDITOR.

A. K. Morris, captain, Medical Corps, Fork Mountain, is now with the 34th Portable Surgical Hospital, Fort Jackson, South Carolina.

W. F. Roth, Jr., U. S. Naval Hospital, Farragut, Idaho, to Recruiting Office, Columbus, Ohio.

Robert K. Galloway, major, Medical Corps, 300th General Hospital, Camp Forrest, to Office of the Surgeon, Station Hospital, Key West Barracks, Florida.

Julian K. Welch, Jr., captain, Medical Corps, Memphis, is now overseas. In a recent letter he states that he is very much interested in receiving copies of the JOURNAL.

The present address of Everett E. Carrier, captain, Medical Corps, is No. 40, Cloverly Hall, Harvard University, Cambridge, Massachusetts.

NEWS NOTES AND COMMENTS

Dr. Ethel Walker announces the opening of an office at 3415 West End Avenue, Nashville. Practice limited to pediatrics.

MEDICAL SOCIETIES

The Knox County Medical Society met on June 22. Dr. E. G. Wood, a delegate from the Tennessee State Medical Association to the meeting of the House of Delegates of the American Medical Association, Chicago, June 7-10, discussed the activities of the recent session.

Dr. M. S. Roberts read a paper on "Prepaid Hospital Insurance—National, State, and Local Attitudes."

Hamilton County:

June 10—Paper by Dr. E. Dunbar Newell.

July 1—Paper by Dr. C. R. Thomas.

August 5—Scheduled to be read: "Review of More Than Twenty Years of Eye Surgery," by Dr. Stewart Lawwill.

OTHER MEDICAL SOCIETIES

The Upper Cumberland Medical Society held its Forty-Ninth Annual Meeting at Red Boiling Springs, June 15, 16, 1943.

The following papers were read:

"Some Observations on the Care of Lacerated Globe of the Eye," by Dr. R. L. Witherington, Cookeville. Discussion opened by Dr. W. M. Brown, Livingston.

"The Management of Prolonged Labor," by Dr. R. E. Key, Carthage. Discussion by Dr. Guy C. Pinkley, Jamestown.

"President's Address," by Dr. Fred Terry, Cookeville.

"A Frequent Heart Problem," by Dr. S. J. Fentress, Goodlettsville. Discussion by Dr. J. Peery Sloan, Jamestown.

"Foods and Vitamins," by Dr. J. T. Moore, Algood. Discussion by Dr. Wm. R. Cate, Nashville.

"Management of the Obstetric Case Outside the Hospital," by Dr. R. C. Gaw, Gainesboro. Discussion by Dr. E. B. Clark, Sparta.

"Jaundice," by Dr. Thayer S. Wilson, Gordonsville. Discussion by Dr. O. N. Bryan, Nashville.

"Some Conditions Not Infrequently Overlooked," by Dr. W. H. Witt, Nashville. Discussion by Dr. C. E. Reeves, Gainesboro.

"Trachoma," by Dr. W. M. Brown, Livingston. Discussion by Dr. Lillard Sloan, Carthage.

"Treatment of Menorrhagia," by Dr. Thurman Shipley, Cookeville. Discussion by Dr. C. S. McMurray, Nashville.

"Treatment of Fracture of Neck of Femur," by Dr. Lewis Buell, Celina. Discussion by Dr. Duncan Eve, Nashville.

"Treatment of Gastrointestinal Emergencies," by Dr. W. A. Howard, Cookeville. Discussion by Dr. L. W. Edwards, Nashville.

"Chorea," by Dr. Edd Gross, Chestnut Mound. Discussion by Dr. C. B. Roberts, Sparta.

The Southern Pediatric Seminar will hold its Twenty-Third Session, July 19 to July 31, 1943, at Saluda, North Carolina.

For further information, address Dr. D. Lesesne Smith, Registrar, Infants' and Children's Sanitarium, Saluda, North Carolina.

The American Congress of Physical Therapy will hold its Twenty-Second Annual Scientific and Clinical Session, September 8, 9, 10, and 11, inclusive, at the Palmer House, Chicago.

For information concerning the instruction course and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

The Southern Medical Association will hold its Thirty-Seventh Annual Meeting, November 16, 17, and 18, at Cincinnati, Ohio.

ABSTRACTS OF CURRENT LITERATURE

ANESTHESIA

By Hugh Barr, M.D.
Medical Arts Building, Nashville

Hypertension: Management of the Anesthesia Period. Fredrick P. Haugen, M.D. Anesthesia and Analgesia, May-June, 1943.

Hypertension may be without notable organic changes and the anesthetic risk is not increased. When organic changes have occurred, it is of major concern. Coronary thrombosis, cerebral thrombosis, or congestive heart failure may result from a period of marked hypotension which often does not develop until the anesthesia period is well passed. Hypertension patients are more resistant to anesthesia than the normal.

Fairly heavy sedation is required to prevent apprehension, excitement, and undue rise in blood pressure. The induction period should be slow as to avoid anoxemia. The author recommends the use of four to eight cubic centimeters of a two and one-half per cent solution of pentothal sodium by vein followed by nitrous oxide and oxygen ether.

The blood pressure is little changed. At most it is lowered only twenty to thirty millimeters mercury. Sufficient oxygen can be given to avoid a rise of blood pressure due to anoxemia. Every effort should be used to prevent hypotension caused by surgical shock and hemorrhage.

INTERNAL MEDICINE

By R. B. Wood, M.D.
By D. R. Thomas, M.D.
Medical Arts Building, Knoxville

Gastric Analysis. Editorial Section. Gastroenterology, Vol. 1, No. 5, May, 1943.

Gastric analysis has been the method of gastroenterologists for sixty years, and to suggest its superfluity is to attack tradition, though wartime is probably an appropriate time. The chief army problem from the standpoint of gastroenterology is the differentiation between organic and nervous disease, and it seems that gastric analysis does not contribute anything to the differential diagnosis. High acidity, normal or low, and even anacidity may be found in the psychoneurotic as well as in organic disease. Even histamine-proved anacidity has been found in the presence of chronic gastroduodenal ulcer by Ruffin and Palmer. Neither prognosis or treatment will be influenced by the result of gastric analysis, and from the army standpoint a routine gastric analysis does not help to solve the problem of whether a "soldier will stand up under the strain of combat conditions." Two conditions may arise in which an analysis may be of value: (1) in differential diagnosis between benign ulcer and malignancy, a histamine-proved anacidity speaks in favor of malignancy, and (2) if macrocytic idiopathic anemia is suspected, the presence of acid speaks against such a diagnosis. It is suggested in army hospitals, gastric analysis be no longer considered as a routine method.—Rudolph Schindler.

Major Donald T. Chamberlain (Gastric Analysis in an Army Hospital) of the Medical Corps calls attention to the fact that all have seen cases simulating peptic ulcer with a demonstrated achlorhydria that respond to hydrochloric acid administration and unexplained diarrhea disappear by the same therapy. An analysis should be used when conditions in which it is known to be of value are involved.

Alvarez, discussing the value of gastric analysis, recapitulates the various possible findings and their significance. Variations in amounts has no special and constant significance from a diagnostic, prognostic, or therapeutic standpoint except the presence of free acid probably rules out the possibility of an Addisonian anemia.

"The trouble is that most acid values commonly

reported by the laboratory are perfectly compatible with a diagnosis of either normal stomach gastritis, gastric ulcer, duodenal ulcer, gallstones, or gastric cancer."

The Ventricular Complex in Multiple Precordial Leads in Modern Concepts of Cardiovascular Disease, June, 1943. F. D. Johnston, M.D.; F. F. Rosenbaum, M.D.; and F. N. Wilson, M.D., Ann Arbor, Michigan

It has been clearly demonstrated that precordial leads as now employed are semidirect leads from the anterior surface of the heart and record the potential variations of the part of the ventricular surface of the heart nearest the exploring electrode. They may be regarded as clinical substitutes for and yield information similar to unipolar direct leads, and are capable of detecting local lesions of the anterior wall of the heart, which produce no alterations in the ventricular deflections of the limb leads.

It would seem best, then, that the best possible precordial leads are those most faithfully reproducing the potential variations of the part of the epicardial surface nearest the precordial electrode. The number of leads taken must be sufficient to give adequate information regarding the potential variations at the surfaces of both ventricles. In the author's laboratory the six leads recognized by the committee of the American Heart Association on standardization of precordial leads are taken, and in addition leads from the tip of the ensiform cartilage, left posterior axillary line, and from the left scapular line, and often from the ventricular level of the esophagus.

The authors employ a central terminal connected through 5,000 ohms resistance to electrodes on the right arm, left arm, and left leg to avoid the potential variations of limb electrodes.

Single precordial leads are not satisfactory because it gives information concerning only a small part of the anterior ventricular surface. Multiple leads record the changes in the character of the ventricular deflections as the electrode moves across from right to left. In these leads the peak of the upward reflection (R) marks the onset of the intrinsic deflection which signals the activation of the subepicardial muscle beneath the exploring electrode. When this peak occurs early in the Q R S interval, the R wave is usually small; and when it occurs late, it is usually large and often preceded by a Q deflection.

On normal subjects leads from the right side of the precordium yield a small initial R wave and deep S wave. On leads from the left side, the R deflection is much larger and reaches its apex late and S is small or absent. The complexes obtained by leading from the central part of the precordium are intermediate in form between those obtained as above described. The location and width of the transitional zone are quite variable, but in most people near the point from which the third precordial lead is taken. The factors which determine its position and extent are still obscure.

In patients with left ventricular hypertrophy the findings are:

1. Voltage of the largest Q R S deflections are larger, as a rule.
2. The Q R S interval is often increased to .10 to .11 sec.
3. In leads from the right side the initial deflection is abnormally small or absent.
4. The transitional zone is shifted to the left.
5. In leads from the left side of precordium, R and often Q are larger; the peak of the R comes later in the Q R S interval and T is usually inverted.

In cases of great right ventricular hypertrophy, the precordial curves are opposite in form to those obtained in left ventricular hypertrophy. On the right side of the precordium, the R waves are very large, a Q deflection often present, S small or absent, and T frequently inverted. On the left side, R is small, S very large, Q absent, and T upright. These curves resemble those of right bundle branch block except the Q R S is not as wide.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Orbit, Eyeball, and Accessory Sinuses Pulsating Exophthalmos: Review of All Reported Cases. J. D. Martin, Jr., and R. F. Mabon. Archives of Ophthalmology, June, 1943.

The authors report five cases of pulsating exophthalmos and supply the following summary and conclusion:

"There have been 163 articles in major journals on pulsating exophthalmos since Locke's review in 1924; 224 additional cases have been reported through December, 1941. Essentially, all reports deal with the same problem previously discussed by Locke and others. It is noted that the choice of treatment is primarily operative. Ligation of the internal carotid was performed in forty-seven cases; of this number twenty-five were reported as cured. The common carotid was ligated in forty-three instances with cures in thirty. The ligation of multiple vessels, a combination of either the internal, external, or common carotid and orbital veins, was carried out in forty-one cases with twenty-seven cures. It is evident from such a summary that the results in all types of treatment are the same. The greatest contribution since 1924 has been, perhaps, the work of Dandy in ligating intracranially the carotid artery for the purpose of trapping the aneurysm. This procedure has been carried out six times, with four cases being reported as cured. It is advisable in many instances to undertake this operation when other methods fail.

"In this report a complete review of the literature since 1924 has been made. This brings the total reported cases to 812. Five additional operative cases are submitted by us. An explanation for

the development of these conditions is made on the basis of anatomic studies of the cavernous sinus. This is the only example of a major artery within and a part of a large venous channel. Any trauma or disease to the artery would, therefore, allow an interchange of arterial and venous blood between these structures, thus an arteriovenous fistula would be formed. Basal fractures involving this area should be attended with the thought that a fistula may occur. In view of the progress of the disease, early treatment, namely, ligation of the carotid artery, should be undertaken before extensive proptosis develops. This would decrease the danger of further destruction and blindness. Surgical treatment is beneficial, although many cases are followed by slight improvement and sometimes no change. There is no satisfactory direct operation to obliterate the fistula. This primarily is due to its location and association with vital structures."

ORTHOPEDICS

By J. J. Ashby, M.D.
Doctors Building, Nashville

Fractures of the Shaft of the Femur: A Review of the Treatment of Femoral Shaft Fractures. Major Athey R. Lutz, McParkersburg, West Virginia. The West Virginia Medical Journal, Volume 39, Number 4, April, 1943.

The basic principles in treating compound fractures are given by the author as: (1) treatment of hemorrhage and shock; (2) prophylaxis and infection control; (3) complete immobilization.

Hemorrhage and shock are frequently grave and demand immediate treatment. When bright, red blood is pouring out of the wound, immediate control is necessary. A tournique should be applied close to the wound if amputation is probable. If early repair is expected, it should be put at the root of the limb or at a distance from the wound.

If the fracture is not compound and there is unusual swelling, discoloration or pulsation at the site of the injury, and if there is pallor, coldness, and numbness distal to the injury, it is probably due to damage to a large blood vessel.

Morphine is always indicated to control pain unless there is associated head injury, and even then in selected cases in small doses accompanied by caffiene. Barbiturates are a good substitute and can be used frequently. Body temperature must be controlled with judgment. It is not wise to sweat a patient who has already lost fluids.

Traction is used as first-aid measure, for transportation to prevent and relieve shock and relieve muscle spasm. Traction and compression bandages will stop all hemorrhage except in larger arteries. Fluid replacement is always necessary. It may be given in the form of whole blood, plasma, saline, or even hot drinks. One should not wait until the blood pressure falls to give fluids, as this is a late sign of shock. It is safe to assume that every case of compound fracture of the femur is a potential shock victim.

The author describes the Army use of sulfanilamide dusted in the wound as a first-aid measure, and the use of the half-ring splint for traction. He goes on to state that one must not forget that the treatment of shock and debridement can be carried on at the same time. The debridement is better if carried out in one or two hours after the injury. At this stage and up to six hours, the wound contamination can be controlled by debridement. This can still be undertaken from six to twelve hours after the injury, but after twelve hours the wound should only be made larger, if necessary, and foreign bodies removed. Debridement at this itme is contraindicated. In the service the wounds are never closed even in the early cases.

Skeletal traction is the most used treatment for reduction and immobilization with Kirschner wires and heavy initial traction. Often thirty-five pounds are put on at once. This usually overreduces the fracture in twenty-four hours. The weight is then diminished and approximation of the fragments allowed. Frequent X-rays are necessary during the first week to get good alignment and approximation as soon as possible.

Open operations are seldom necessary, but may be indicated if there are interposed fragments or extreme displacements which cannot be reduced by closed methods.

The author states in his conclusion that no single method of treating fracture of the shaft of the femur is sufficient in every case, and one must apply each type of treatment according to the individual indications.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

The Experimental Production of Stones in the Bladder. Hector Alfonso Davalos, Jr. The Journal of Urology, May, 1943.

Many writers attribute great importance to the following factors in the genesis of urolithiasis: infection (local and focal), hyperparathyroidism, vitamin A deficiency, stasis, and metabolic factors (phosphaturia, oxaluria, cystinuria, etc.).

The infectious factors in the production of urinary stones is discussed in this article. In addition to having bacteria instilled into the bladder, there must be other favorable conditions present, as stasis, circulatory, and epithelial changes in order to produce calculi.

These experiments were carried out on rabbits as follows: From two to five cubic centimeters of a 1.1,000 alcoholic solution of salicylic acid was instilled into the rabbit's bladder daily for four days. At the end of this time there was present a clinical cystitis due to the action of the drug. From two to four cubic centimeters of a twenty-four-hour culture of proteus bacilli, from the urine of a pa-

tient with bladder stones, was then instilled into the bladder, and this was repeated every five days in order to maintain a chronic-infected bladder. Before each instillation the urine was collected to determine the presence of infection and cystitis.

The experiments were carried out in three groups of animals. One group received instillations of both the salicylic acid and the culture of proteus. Another group received the instillations of bacteria only, and the other group the salicylic acid only. About fifty experiments were carried out. Ten cases of bladder stones were found. All occurred in cases receiving the instillations of both the bacteria and the salicylic acid.

The bacillus proteus was selected because it possesses the greatest ureolytic properties.

These experiments demonstrated that the instillation of a chemical agent alone, or the instillation of bacteria alone, would not cause stones, but the combination of the chemical cystitis plus infection would cause the formation of calculi.

The practical value of these experiments is that individuals with a tendency to lithiasis should avoid, if possible, infections of the urinary tract, especially those due to the bacillus proteus.

Send It to

LILY WHITE LAUNDRY

6-3118

Order Reprints From

McQUIDDY PRINTING COMPANY

Nashville, Tennessee

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.
President-Elect—Dr. Kyle C. Copenhaver, Medical Arts Building, Knoxville.
Vice-President for West Tennessee—Dr. J. W. Oursler, Humboldt.
Vice-President for Middle Tennessee—Dr. Burnett W. Wright, Nashville.
Vice-President for East Tennessee—Dr. J. C. Brooks, Chattanooga.
Secretary-Editor—Dr. H. H. Shoulders.
Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1946).
Dr. E. R. Zemp, Walnut Street, Knoxville.
Dr. B. L. Jacobs, Provident Building, Chattanooga (1946).
Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).
Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Jere L. Crook, Jackson.
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.
Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1946).
Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennesse (1946).

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	I. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S. Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	H. H. Edmondson, Clarksville	Jack Ross, Clarksville	B. H. Webster, Clarksville
Obion			D. S. Latimer, Union City
Overton	W. M. Breeding, Livingston		A. B. Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood	W. W. Hill, Harriman	
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			W. M. Dedman, Gallatin
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. W. L. Williamson, Memphis
Dr. L. W. Edwards, Nashville
Dr. E. G. Wood, Knoxville
Dr. A. M. Patterson, Chattanooga
Dr. J. O. Manier, Nashville

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville (1945)
Dr. A. F. Cooper, Memphis (1944)
Dr. Cecil E. Newell, Chattanooga (1946)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. E. A. Gilbert, Chattanooga (1944)
Dr. R. R. Crowe, Nashville (1946)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Lee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1946)
Dr. John B. Steele, Chattanooga (1946)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1946)
Dr. T. R. Ray, Shelbyville (1946)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. O. N. Bryan, *ex officio*, Nashville

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1948)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1946)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1946)
Dr. John M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. C. H. Sanford, Memphis (1944)
Dr. D. W. Smith, Nashville (1946)

COMMITTEE ON MEMOIRS

Dr. James O. Walker, Chairman, Franklin (1945)
Dr. D. W. Hailey, Nashville (1944)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1946)
Dr. J. L. Hankins, Johnson City (1946)

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. John S. Cayce, Nashville (1944)
Dr. J. B. Fitts, Chattanooga (1944)
Dr. M. L. Hefley, Knoxville (1946)
Dr. C. W. Friberg, Johnson City (1946)

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. W. R. Cross, Knoxville (1946)

COMMITTEE ON CANCER

Dr. C. H. Heacock, Chairman, Memphis (1944)
Dr. Ralph H. Monger, Knoxville (1946)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. Stanton S. Marchbanks, Chattanooga (1944)
Dr. Howard King, Nashville (1946)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. C. R. Thomas, Chattanooga (1944)
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1946)
Dr. George Inge, Knoxville (1946)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. Carrington Harrison, Nashville (1946)

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. E. T. Newell, Chattanooga (1945)
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Robert F. Patterson, Knoxville (1946)

COMMITTEE ON PREPAYMENT PLANS FOR MEDICAL AND HOSPITAL SERVICES

Dr. J. O. Manier, Chairman, Nashville
Dr. R. R. Brown, Nashville
Dr. J. C. Brooks, Chattanooga
Dr. M. S. Roberts, Knoxville
Dr. A. R. Porter, Jr., Memphis
Dr. W. D. Stinson, Memphis

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatic Society—
President—Dr. Frazier Binns, Nashville*
Vice-President—Dr. O. L. Von Canon, Chattanooga*
Secretary—Dr. Gilbert Eblen, Knoxville*

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland*
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis*
Vice-President—Dr. Franklin B. Bogart, Chattanooga*
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

*In service.

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 8

AUGUST, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

MEDICAL ASPECTS OF CHEMICAL WARFARE AS RELATED TO CIVILIAN DEFENSE, Rexford M. Powell, M.D., University of Tennessee 289
CONCERNING ROCKY MOUNTAIN SPOTTED FEVER 298
TRAUMATIC PSEUDOCYST OF THE PANCREAS, Carrington Harrison, M.D., and Fred Cooper, M.D., Nashville 299
CERTAIN COMPLICATIONS OF TREATMENT, Albert Weinstein, M.D., F.A.C.P., Nashville 305
SURGICAL TREATMENT OF PEPTIC ULCER, G. Turner Howard, Jr., M.D., Knoxville 310
ACUTE ABDOMINAL SYMPTOMS RESULTING FROM BLACK WIDOW SPIDER BITE, Major Harwell Wilson, Medical Corps, A. U. S. 324
EDITORIAL 317
DEATHS 320
NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE 320
NEWS NOTES AND COMMENTS 320
MEDICAL SOCIETIES 321
ABSTRACTS OF CURRENT LITERATURE 321
BOOK REVIEW 325
LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION 327
STANDING COMMITTEES 328
INDEX TO ADVERTISERS XXII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

BACKGROUND

Three Decades of Clinical Experience

THE use of cow's milk, water, and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

DEXTRI-MALTOSE No. 1 (with 2% sodium chloride), for normal babies.
DEXTRI-MALTOSE No. 2 (plain, salt free), permits salt modifications by the physician.
DEXTRI-MALTOSE No. 3 (with 3% potassium bicarbonate), for constipated babies.

These products are hypo-allergenic

DEXTRI-MALTOSE

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons. Mead Johnson & Company, Evansville, Ind., U. S. A.

BOSTON 1943 MEDICAL LIBRARY



Three forms of Wyeth digitalis assist the physician in providing the cardiac patient with precise protection. In addition to Wyeth's Tincture Digitalis, U.S.P., Wyeth's Capsules Digitalis Leaf, Defatted, are available. In cases when nausea and vomiting, due to causes other than digitalization, preclude oral administration, Wyeth's Suppositories Digitalis Leaf permit rectal administration.

JOHN WYETH & BROTHER, INC., PHILADELPHIA, PA.

- Wyeth's Tincture Digitalis, U.S.P. XII. *Bottles of 4 fluidounces and one pint.*
- Wyeth's Capsules Digitalis Leaf, Defatted, 1 unit U.S.P. XII. *Bottles of 36, 100, 500 and 1,000 capsules.*
- Wyeth's Suppositories Digitalis Leaf, 1 unit U.S.P. XII. *Boxes of 12.*

ALL ARE PHYSIOLOGICALLY STANDARDIZED.



Wyeth's DIGITALIS PRODUCTS

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI AUGUST, 1943 No. 8

MEDICAL ASPECTS OF CHEMICAL WARFARE AS RELATED TO CIVILIAN DEFENSE*

REXFORD M. POWELL, M.D., University of Tennessee, Knoxville

Quoting from the final report of General John J. Pershing, whether or not toxic gas will be employed in future wars, is a matter of conjecture, but the effect is so deadly to the unprepared that we can never afford to neglect the question.

Civilian defense is not complete and adequate unless there is a defense also against chemical warfare agents. A general knowledge of the principles concerning the mode of action of gases is more important than the details regarding specific gases, since in actual use they may be mixed or they may be of an unknown nature. Principles of the gases thus far used concern pulmonary, skin, and eye irritation. Systemic effects of new gases are to be watched for. We are almost devoid of any experience in civilian protection against gas in distinction to large experience in bombings with high explosives. Our knowledge of war gases is based upon the experience we had with gases used in the last war and also on experiments with the same gases on experimental animals and recently from individuals injured in chemical laboratories.

Military operations today are no longer confined to more or less localized battlefields. The development of air force and fast-moving armored units operating on land has made it possible to strike at "military objectives" deep in hostile territory. Thus, towns and cities far beyond the range of the enemies' field guns, especially areas of great importance as railway or supply centers, are now subject to attack. In these far-flung operations it is always possible that toxic gas may be used.

To reap the benefit of surprise, a nation bent upon making use of gas would try, in all probability, to conceal that fact until the moment of employment. This might not be difficult. Indeed, preparations for chemical warfare are more or less easily concealed, since many of the chemicals have commercial uses also and their manufacture, in limited quantities at least, is a normal industry.

Gas might be used in an attack upon a civil community either alone or in conjunction with other means. It is a reasonable assumption that the better people are equipped and trained to deal with gas, the less likelihood of it being used against them.

Chemical warfare weapons are used only as auxiliary weapons.

The vulnerability of any community, town, or city to gas attack depends largely upon its location. So great is the extent of this country that its vulnerability will vary greatly with different communities. It may be expected that, in event of war

*Read before the Knox County Medical Society, March 31, 1943.

endangering any civil community in this country, the War Department will give timely warning to the states which in whole or in part are considered to be in the zone of immediate danger.

But, aside from these considerations, it should be realized that there is necessarily a limitation upon the extent to which gas might be used. Despite the great increases in recent years in the cruising radius and carrying capacity of aircraft, the idea of a gas attack on such a large scale as to wipe out the population of a large city, or even a large proportion of it, is still regarded as fantastic.

Even in limited areas, to be highly effective, gas usually must be employed in great quantities. Few nations have the resources in raw materials and manufacturing capacity to wage chemical warfare on an extensive scale. Fortunately, the United States of America is well provided for in these respects should occasion arise for its resort to chemical means.

There have been, from time to time, reports in the press concerning new, all-powerful gases which, so it is said, existing means of protection would be entirely ineffective. Such stories may be regarded as unfounded. The consensus of military chemists is that the discovery and use of some new gas against which a modern gas mask would not give protection is very unlikely. There are many substances which, under certain conditions, are more injurious than known war gases, but for one reason or another they cannot be used effectively in the open air. However, it cannot be said that the possibilities of chemistry have been exhausted. Throughout the world, both in government arsenals and in private laboratories, new chemical weapons, or new means of using old ones, are constantly being sought. Thus, it is imperative for the national defense that research and development work on gas protective devices and measures be continued with unceasing vigilance.

The purpose of chemical warfare in a civilian population is different than that in military use. Probably the greatest danger in the event of a gas attack upon a civil community is the likelihood of panic. Assuming adequate supply and distribution of gas masks, this can be avoided. There might always be some casualties, but many incidental injuries and fatalities from falls, trampling, and traffic accidents are inevitable. To prevent this, the mere provision of gas protective equipment is not sufficient. The people must be trained in the use of such equipment, have confidence in it, and overcome their fear of gas. Panic arises from fear, but knowledge and understanding dispel fear. In defensive preparations gas protective training is of the utmost importance.

Every adult person should have a fair knowledge of war gases, their action upon the body, the means of detecting their presence, the first-aid measures for those exposed to them. He should know what a gas mask is, how it works, and how to construct a simple but effective gasproof shelter in his home. It is desirable, too, that he understand "decontamination" or the process of getting rid of certain types of war chemicals which may be used and which are not quickly destroyed or removed by the natural action of the wind and weather.

It will be used on the civilian population also to interfere with the regular lines of communication; to protect flanks from possible invasion points; and, lastly, to destroy or to contaminate important industrial establishments or railheads.

There are several probable means of dissemination of gas upon the objective. It may be disseminated by (A) airplane projection: (1) low-flying spray of mixtures such as (a) phosgene-mustard or (b) mustard lewisite; (2) chemical bombs which are less efficient because of the heat generated in the explosion of the bomb volitalizes the gas too rapidly; (3) smoke screens to conceal more serious agents, possibly parachutists, to determine wind direction, and to reduce antiaircraft fire. (B) Attacks by hostile naval craft by various types of chemical shells. (C) Sabotage by: (1) incendiary mixtures; (2) chemical land mines in bulk containers; (3) contamination of unprotected food collections and of small water supplies by arsenical agents.

(D) Attacks by parachutists with (1) chemical cylinders fired by hand or by electricity; (2) flame throwers; (3) chemical grenades.

Weather conditions have much to do with the success or failure of a gas attack. We speak of all of these substances as gases, but, as you are aware, such things as pressure and temperature may vary all substances into existing in the solid, liquid, or gaseous state. For instance, water changes from solid to liquid at zero degree centigrade. The air is saturated with water vapor when the partial pressure of water vapor is equal to the vapor pressure of water at that temperature. The vapor pressure of water is 4.6 millimeters mercury at zero degree centigrade, 17.5 millimeters at twenty degrees centigrade, and 760 millimeters at 100 degrees centigrade. The same principle applies to all substances, whether their partial pressures may be greater or less than that of water at a given temperature. Equal volumes of gases under the same conditions of temperature and pressure contain the same number of molecules. Therefore, the density of a gas is proportioned to its molecular weight. Gases of high density are those formed of those substances of high molecular weight.

All effective war gases are heavier than air. The addition of a heavy vapor and the cooling effect of evaporation in a gas cloud cause the cloud to hug the ground and seek out depressions. The concentration of vapor in a gas cloud varies inversely as the square root of the height above the ground. Smoke clouds, on the other hand, have an even concentration at all elevations above the ground. During the day, and especially when the sun is shining, the ground surface frequently becomes from ten to fifty degrees hotter than the surrounding air. The heated ground causes violent convection currents, known as the running mirage to riflemen and surveyors. At night and in the early morning the surface of the ground is frequently cooler than the surrounding air, and under such conditions there are no convection currents and smoke particles lose their heat to the ground by radiation. Thus we see the reason for firing chemical agents at night, especially during the hours from midnight to sunrise and shortly thereafter.

General Rules

Favorable Conditions

Sky—heavily overcast.

Time of day—night or early morning.

Terrain—level fields or water.

Ground—colder than air.

Winds—Steady, zero to four miles per hour for gas fired by projectiles. Steady, five to eight miles per hour for smoke.

Average Conditions

Sky—partially overcast.

Time of day—midmorning, late afternoon.

Terrain—moderately rolling farm lands.

Temperature—air and ground nearly same temperature.

Winds—Slightly shifting, four to nine miles per hour for gas. Slightly shifting, eight to twelve miles per hour for smoke.

Unfavorable Conditions

Sky—clear.

Time of day—11:00 A.M. to 4:00 P.M.

Terrain—broken or wooded.

Ground—much hotter than air.

Winds—variable or over nine miles per hour for gas. Variable or over twelve miles per hour for smoke.

The effective toxic concentration is modified by such factors as density, persistency, and volatility. It is desirable that gases be stable, be relatively easy to manufacture in large quantities, and be difficult to detect.

Physical State

1. Gases—*e. g.*, phosgene.
2. Liquids—*e. g.*, mustard.
3. Solids—*e. g.*, adamsite.

Tactical Uses

The gases may be used as direct casualty agents, harassing agents, or as incendiary and corrosive agents.

a. Lung irritant gases (phosgene—B. P. 8.2 C., casualty gas. Chlorine—B. P. 33.6 C., casualty gas. Vomiting gas—chlorpicrin B. P. 112 C., harassing gas).

A typical example of this class of chem-

ical agents is phosgene, which in concentrations producible in the open may cause death. It is a nonpersistent gas and in open areas is usually dissipated within ten minutes after its release. Being heavier than air, it tends to flow into low areas, in which places, especially in cool weather, it may accumulate and remain in effective concentration for an hour or more. If used on a city, it may be expected to accumulate in such places as areaways below the street level, cellars, etc.

Phosgene can be detected by its characteristic odor. In low concentration this is sweetish and rather pleasant and generally is described as like that of green corn or new-mown hay. In higher concentration the odor is less agreeable and somewhat like that of ensilage or fermented fodder. Phosgene gas itself is colorless, but a cloud of this gas may be perceptible to the eye. It appears as a whitish smoke, due to the presence of condensed water vapor in the cloud.

Phosgene may be used in explosive shells or airplane bombs. It may also be released from cylinders in the user's own position when the wind is such as to blow the cloud to the target. Large clouds of this type may travel in effective concentration for several miles. The agent is highly injurious only when breathed; hence, it may be expected that the user will seek surprise effect by producing an effective cloud quickly with the view to causing exposure before people can adjust gas masks. For this reason, phosgene attacks may well be expected at night. Cool, cloudy weather favors this type of gas. High winds and rains are unfavorable for its use.

Effects on the body: when breathed, phosgene acts directly upon the lungs, causing the air cells to fill with fluid from the body. Thus oxidation of the blood may be considerably retarded or stopped entirely, depending upon the amount of pulmonary edema present. If the concentration of the gas is high, casualty effect takes place rapidly after brief exposure. If the concentration is low, the physiological effects frequently are delayed.

Catching the breath, coughing, and choking usually follow the breathing of phosgene. Sometimes there is vomiting. These symptoms may shortly disappear and for several hours afterward the victim may feel well and thus not realize that he is injured. However, if the lungs have been seriously affected, these symptoms will return in more violent form. As a rule, if there is no return of such symptoms in twenty-four hours of exposure, the affected person can be regarded as out of danger.

A person exercising, or merely standing erect, requires much more oxygen to sustain life than one lying at complete rest. Since lung injury, due to breathing phosgene or similar gases, reduces the vital capacity of the lungs to supply oxygen, it is manifest that such a gas victim should be placed at complete rest at once. The gravest danger of sudden collapse and possibly death is incurred when a person who has been exposed, disregarding or not realizing his injury, continues to exert himself. In addition to its effect on the lungs, phosgene also irritates the eyes and causes a flow of tears.

Phosgene in high concentration, especially if moisture is present, has a corrosive action on metals. Food exposed to it may be contaminated.

A modern gas mask provides complete protection against phosgene and all the known agents of its class.

Treatment.—There is no first aid except collection and transportation. The first thing to decide is whom to collect, which means that a diagnosis must be made. Diagnosis may be made by a nonmedical gas officer, who makes the diagnosis by reviewing the circumstances of the exposure to gas. This may be done accurately by an expert and is highly recommended, whenever possible, to spare overcrowding and obstruction of the gas therapy services by frightened people who will need no treatment. The casualties will be classified as either mild (slight irritation of the throat, slight cough, etc.), moderate (pain in chest, cough, good color), or as severe (cyanosis, pulmonary, edema, etc.). The diagnosis may, however, be impossible before pulmonary edema has developed. Obvious exposure to pulmonary irritants should be

taken as a diagnosis because fatal gassing may not appear for several hours to come.

It is to be emphasized that every unprotected individual who has been exposed to pulmonary irritants must be considered as a casualty and must have evacuation on a stretcher. Severe cases, of course, get priority in evacuation. Even if the history and signs suggest a mild case the casualty is not allowed to sit up. They will be seen by nonmedical personnel first who must learn the necessity for the following immediate measures:

1. Stretcher case with emphasis on transportation as soon as possible.
2. Warm blankets.
3. Hot tea or coffee if the casualty desires such.
4. No artificial respiration attempted under any circumstances. Treatment at hospital.

Pulmonary Edema

The diagnosis of pulmonary edema is made by the symptoms of dyspnea, hypernea, cyanosis, emphysema, rales, and pink sputum.

There is no specific treatment. From the nature of the disorder I would not expect there ever to be a specific treatment once that pulmonary edema develops. Cyanosis is the guide to treatment and oxygen want and circulatory embarrassment are the two important disorders which have to be treated. All the acceptable literature describes two types of cyanotic patients: (1) blue with full pulse and (2) ashy gray and pulseless. The first patient, blue with full pulse, probably has a backward failure of the circulation with full blood volume and high venous pressure. It is recommended that you bleed this patient. The best guide to bleeding is venous pressure, and venous pressure can be estimated by inspection, also by the response to opening a vein. If he bleeds freely, he probably will be helped. There is no need to make him bleed. There is much disagreement about how much to bleed. I think the best guide is the venous pressure. Five hundred cubic centimeters or less will usually reduce the venous pressure. The value of bleeding is still very much in doubt. Glucose increases pulmonary congestion. Plasma is indicated.

b. Vesicants (mustard—B. P. 228 C., odor of garlic. Lewisite—B. P. 190 C., odor of geraniums. Ethyldichlorarsine—B. P. 156 C., odor of pepper).

The outstanding example of this type of gas is mustard gas which in concentrations producible in the open may cause death. Mustard gas is an oily, slowly evaporating liquid, characterized by its vesicant or blistering action. It is highly persistent (summer, five to ten days in the open, two to three weeks in woods; winter, weeks in open and in woods, freezes at fourteen centigrade, fifty-seven Fahrenheit). Mustard gas will permeate any material which is at all porous, rendering it dangerous to touch, until decontaminated. Likewise, mustard gas will adhere to and contaminate metal surfaces.

How detected: Mustard gas has a characteristic odor which is very much like that of garlic. The sense of smell, however, soon becomes fatigued by this odor so that after a time, if exposure to low concentrations of the gas is continued, the presence of the gas may not be noticed. A somewhat similar agent, lewisite, has the distinct odor of geraniums. Liquid mustard gas, splashed or sprayed on vegetation and light-colored surfaces, shows as brownish spots. The vapor is invisible.

How used: Mustard gas and similar agents may be disseminated by means of explosive shells or airplane bombs or they may be sprayed in the form of fine rain from containers carried on aircraft.

Effect on the body: Even in low concentration, mustard gas has very serious effect upon the eyes, the vapor causing irritation and frequently temporary blindness; the liquid, necrosis, with scars of various types and forms. The vapor of mustard will quickly penetrate ordinary clothing, causing burns upon the skin, particularly at moist delicate parts such as eyes, neck, axillae, perineum, and scrotum. A small droplet of the substance in liquid form, sufficient merely to cover the head of a pin, will cause a severe burn. The longer the latent period

the less severe the burn from these agents —mustard, two to six hours; lewisite, fifteen to thirty minutes.

The first symptoms of skin burns are usually itching. This is followed by a rash which changes later to watery blisters and possibly a deep wound. Unless a great amount of the skin surface is thus affected, such wounds are rarely fatal unless infected, nor do they usually cause permanent injury, though long periods of hospitalization is required to cure them. Cutaneous lesions may vary from erythemas to deep necroses. Mustard blisters may differ from lewisite blisters. Sites of predilection—eyes, neck, axillae, perineum, and scrotum. Mustard lesions may become infected. Mustard lesions may progress for three days. Deep burns show central induration with a peripheral ring of vesiculation. Mustard lesions require a long period to heal. Pulmonary irritation may be present also in individuals not protected by gas mask—aphonia may be first sign.

Sequelae—Mustard

Skin: Secondary pyoderma; persistent eczematoid dermatitides; pigmentation.

Viscera: Eyes—necrosis; scars of various types and forms.

Bronchopneumonia secondary to tracheobronchial irritation; chronic pulmonary pathology. Fatal cases (unusual) from secondary infection.

Sequelae—Lewisite (?)

Fatal usually few hours to three; five days of arsenical poisoning; Vedder figure of 1.4 cubic centimeter.

Sequelae—Ethyldichlorarsine (?)

Prevention: Gas mask.

Special impervious clothing: Oil skin type; lighter special impregnated material; if none available, varied forms of cellophane coverings, heavy coat, collar up, sleeves down; raincoat; hat to prevent contamination of hair and scalp.

Protective cream: Will protect and decontaminate mustard; will protect but not decontaminate for lewisite.

Afterskin contact: Mustard — dab and cleanse in approved fashion with protective cream or next best bleaching powder mixture (removed), or sodium hypochlorite, or chloramine T. (do as quickly as possible) or azochloramid.

Lewisite—peroxide, if not available ten per cent sodium hydroxide in glycerine (must do before five minutes).

Ethyldichlorarsine—same as for lewisite. Special attention must be paid to the nail sulci since paronychia may be produced.

Treatment After Development of Lesion

Mustard

Early period one to three days. May debride and then apply: (1) amyl salicylate, full strength; or (2) sulfonamides locally, powder or sulfadiazine wetting agents combinations; or (3) simple wet dressings, boric, Burrow's (diluted); or (4) may try crusting technics.

Later period: (1) may continue use of above or (2) may crust—tannic acid—silver nitrate combination (compound tannic acid preferred because more stable), potassium chloride .42, calcium chloride .80, salicylic acid 1.00, sodium chloride 10.50, tannic acid 100.00, distilled water 1,000.00 cubic centimeters (filter after all dissolved); (3) triple dye mixtures.

Special situations: (1) Eye—sulfonamides locally, such as albucid (Br.); (2) face—cod-liver oil combinations; (3) axillae —wet dressings (a) irrigations repeated with sodium hypochlorite (must watch adjacent uninvolved skin for irritation) and (b) diluted Burrow's solution; (4) lungs—sulfonamides to attempt to prevent a secondary bronchopneumonia; (5) the hair and scalp problem: (a) prophylaxis—keep head covered and (b) treatment of mustard —vapor—wash with soap and water and head over edge of metal stretcher so washings do not run down back or over face. Liquid—soap shampoo, protective cream (if not available, use bleach paste or sodium hypochlorite). Soap and water and clear water rinse, comb, dry. If the above routine is not possible, apply protective cream and remove with soap and water later.

Lewisite

No good treatment available at present. (1) Local and extensive debridement if

practical and possible. This is a must because the bullae contain arsenic. (2) May irrigate lesion with peroxide and then cover with zinc peroxide mixtures; (3) injection of oxidizing agents into actual lesion; (4) systemic: (a) adrenal cortex hormone or desoxycorticosterone (?); (b) biliary drainage; (c) fluids; (d) vitamins.

c. Sternutators (nose and throat irritants, sneeze); irritant smokes (adamsite and diphenylchlorarsine).

These agents, sometimes called sneeze gases, are also frequently referred to as toxic or irritant smokes, since they are not disseminated as gases, but rather in the form of a cloud of minute solid or liquid particles. Such clouds are nonpersistent. Typical of this group of agents is a substance known as adamsite. It is a solid material which is disseminated by burning. There are similar agents which can be used in explosive shells or bombs.

Adamsite has no distinctive odor. It is sometimes described as rather like that of coal smoke or burning smokeless powder. The cloud given off from munitions containing adamsite is canary yellow in color, but after traveling a few hundred yards becomes invisible.

Irritant smokes may be used in burning type munitions called candles, or, in the case of certain types, in shells or airplane bombs containing an explosive charge. In the latter case, it may be difficult to distinguish the bursting shells or bombs from ordinary high explosive types. The particles which make up the clouds of these agents will not penetrate a gas mask which is provided with a suitable type of mechanical filter.

These agents are effective in very low concentrations. Brief exposure to them may cause such immediate distress as to keep victims from adjusting their gas masks or cause them to remove their masks afterward. A high state of "gas discipline" is necessary to prevent this. It must be realized that an attack with agents of this type is likely to be followed by the use of a more deadly gas such as phosgene. The lesions produced, it must be emphasized, may come on after a latent period so that unmasking is necessary. The victims have sneezing and then a sense of fullness and severe bursting headache like pansinusitis, nausea, and emesis. There are severe mental reactions—weakness with suicidal tendencies. The gas contaminates foods and water supplies. It may also produce a dermatitis. The sequelae are few since signs only last an hour or two, but may have psychoneuroses following. The prevention is the use of a gas mask.

Treatment: Sniff chlorine from bleaching powder; if not available, chloroform. Spray nose with pontocaine neo-synephrin Rx; soda bicarb if not available. Rx.: Neo-synephrin hydrochloride one per cent, 4; pontocaine hydrochloride, .04; boric acid saturated solution, 12. Aspirin for headache. Reassurance and protection against self-injury.

d. Lacrymators, tear gases (chloracetophenone, apple blossoms 247; bromobenzyl cyanide, sour fruit 247).

These agent solids are volitalized by the application of heat and so used are not very persistent. The substance may be dissolved in liquids and used in explosive munitions or in airplane spray apparatus. In such cases it is persistent and considerably more severe in its effects. The odor is rather characteristic; however, the action of the gas on the eyes takes place so rapidly that frequently this odor is not perceived.

Lesions produced: Photophobia, blepharospasm, lacramation. There is no irritation of the skin from the tears. Freshly shaven skin may be irritated by the gas even to a severe dermatitis from a high concentration. This is most important in relation to the general population. They may add chlorpicrin to produce nausea.

Prevention: Stay upwind or more at right angles to cloud. A gas mask gives complete protection.

Treatment: (1) Pure air; (2) sodium bicarbonate for eye irritations; (3) four per cent sodium sulphite in fifty per cent alcohol for skin contamination; (4) do not rub eyes.

Such gases may be employed alone or in conjunction with high explosive munitions. It is used to harass and to force the wearing of gas masks. If used against a city,

the purpose would probably be to cause confusion and delay and to lower the morale of the people.

e. Screening smokes (white phosphorus, hexachlorethane mixture, sulphur trioxide in chlorsulfonic acid, titanium tetrachloride).

These are of relatively little importance in civilian defense except for white phosphorus. It is a pale yellow waxy solid. The solid may be melted to a pale amber liquid by immersion in water and heating to approximately 110 degrees Fahrenheit. White phosphorus must be stored under water. In contact with air it ignites spontaneously and burns rapidly with sufficient heat to ignite readily inflammable material. The white phosphorus bomb usually consists of a thin metal casing containing white phosphorus and a small explosive charge to rupture the container on impact. A thirty-pound bomb will scatter burning white phosphorus over an area of fifty to 100 yards in diameter. The solid material is very soluble in carbon bisulphide (high life). When this solution is scattered over combustible materials, the carbon bisulphide rapidly evaporates, leaving the finely divided phosphorus to ignite spontaneously. Spread thinly, it will burn out in about five minutes, but piled deeply it will burn longer, depending on the size of the pile, even for hours.

White phosphorus may be readily extinguished with water; however, as soon as the water drains off it reignites spontaneously. As a protection against ignition while gathering up pieces, they may be sprayed with a solution of "blue vitrol" (copper sulfate) in water two or three per cent by weight. This coats the outer surface with copper and prevents spontaneous ignition. Even with this copper coating, care must be used in handling, as a slight scratch in the coating will expose the phosphorus to the air and ignition results.

White phosphorus is principally used as a smoke or screening agent. It produces a heavy white smoke and may be used to produce panic or for other military reasons.

Treatment of Phosphorus Burns

First stage: Remove the bulk of the free phosphorus and superficial acid with alkali powder (formula 2a, ten per cent of heavy magnesium oxide, five per cent of borax, and eighty-five per cent of sodium carbonate). Under no circumstances must liquid suspected of containing phosphorus be dabbed with a handkerchief or other dry material. If water has been used to extinguish the phosphorus, sprinkle the powder onto the wet surface, add more water if necessary, and work up to a medium thick paste, covering the whole of the burn and the surrounding area if contamination is suspected. Wash or wipe off and reapply as long as effervescence continues. Drying must be avoided at this stage. The advantages claimed over the official treatment are greater concentration and osmotic effect and the prevention of displacement of unignited phosphorus to other parts of the body and clothes. Second stage: immobilize the whole of the remaining free phosphorus by the use of glycerin-copper sulfate paste (formula three or four, 22.5 per cent of copper sulfate, 67.5 per cent of glycerin, 5 per cent of starch, and 5 per cent of water or 20 per cent of copper sulfate, 40 per cent of glycerin, 7.5 per cent of starch, 1 per cent of sodium tauroglycocholate, and 31.5 per cent of water). Apply sparingly but thoroughly, and rub in well. Remove by washing or wiping as soon as no smell of phosphorus is perceptible in the wound. The advantages claimed over the official treatment are concentration, rapidity, osmotic effect, and completeness of action. Third stage: neutralize the deep-seated penetration of acid with alkaline powder (formula 2a). Reapply the powder, work up to a paste with water, bandage and dampen the bandage occasionally. Do not allow the bandages to dry. The importance of this stage has not been previously recognized. Fourth stage: remove to hospital labeled "phosphorus burn," where subsequent treatment should avoid all forms of coagulation therapy (tannic acid, picric acid, silver nitrate) in view of the obvious necessity for not sealing in the acid products. The painful nature of phosphorus burns and their tendency to delayed healing may possibly result from the inadequate treatment of the

concentration of acid, and the alkalinity of the tissues may not be sufficient to deal with it. Therefore, the continued treatment should be alkaline and might consist ideally of the envelop treatment with sodium hypochlorite solution.

The prevention of smoke burns consists of using a gas mask or use of contact lenses.

Other than white phosphorus the treatment is irrigation of eyes with dilute sodium bicarbonate solution.

f. Systemic poisons (ineffective in last war due to low density and consequent low concentration).

The use of cyanides in some form is anticipated because of the speed of action of the CN radical minutes to few hours and because of high toxicity, and because of experimental work done over a period of years in foreign laboratories.

1. *Hydrocyanic Acid*

A. Toxicity: HCN—fatal on short exposure at 3,000 p.p.m.—dangerous; 150 p.p.m. lethal dose about fifty milligrams.

B. Mode of entry: Gas HCN inhalation and cutaneous absorption.

C. Toxic mechanism: Suppresses oxidation by paralyzing cellular oxidoses in all probability (combines with iron)—*i. e.*, cellular asphyxia in presence of adequate oxygen in the blood.

D. Symptoms: Initial stimulation of respiration which is unimportant clinically. Fleeting warmth and slight burning of skin in contact with the gas (through clothing) in presence of 5,000 to 8,000 p.p.m. in air. Weakness and perhaps headache, nausea and vomiting, dyspnea with chest constriction and unconsciousness. (All symptoms may be lacking in high concentrations, unconsciousness occurring in as little as thirty seconds in 6,000 to 8,000 p.p.m.)

E. Diagnosis: Odor of bitter almonds on breath, history of exposure, may be no cyanosis, but often present after respiratory failure. Low differential O_2 content of arterial and venous blood. By exclusion of CO, respiratory irritants (no appreciable irritation of upper respiratory tract), arsine (homolysis). Post-mortem diagnosis by cyanmethemoglobin (difficult).

F. Treatment: Artificial respiration in fresh air. Artificial respiration with O_2 or O_2 and CO_2 mixture. Warmth. As long as heart is beating recovery need not be despaired of.

Specific treatment is dependent upon two principles:

1. CN converted into thiocyanate in the body, and so excreted in essentially harmless form. Sulphur compounds are therefore indicated, especially thiosulphate—not methylene blue.

2. CN combines with methemoglobin to form a relatively nontoxic compound. Therefore, Hb should be converted to net Hb, to combine with CN and diminish its toxic action. Hence, the use of methylene blue and nitrates and oxidizing agents $NaNO_3$ which are found especially effective.

3. There are other principles that have been investigated such as heavy metal salts like iron to combine with CN to form complex nontoxic or less toxic compounds. Unfortunately the heavy metal compounds are toxic in themselves, and, therefore, sufficient doses cannot be used without the risk of heavy metal poisoning.

It has been observed that sodium nitrate works promptly and sodium thiosulfate slowly but synergistically. It is advisable to give amyl nitrite to tide over until the other two can be prepared.

Treatment advised: Pearls of amyl nitrite at first; Na nitrite .3 to .5 grams in 10:15 cubic centimeters H_2O; Na thiosulfate twenty-five milligrams in fifty cubic centimeters of water administered over a period of ten to fifteen minutes; adrenalin or coramine to support cardiac action, if needed. Repeat half dosages of above after two hours or as needed for maintenance. Keep under observation twenty-four to forty-eight hours.

G. Sequelae: Essentially those of asphyxial sequelae. Some tendency to persistent weakness for weeks or months. Case reports show speech defect (slow fatigued tongue), loss of memory, inability to sustain attention.

2. *Arsine*

Is a powerful hemolysin which will penetrate the civilian gas mask. The symptoms

are lassitude, headache, malaise followed by a chill, nausea, vomiting, severe anemia, hemoglobinuria, and hemoglobinemia.

Diagnosis is made by the history of exposure and above symptoms.

Treatment: Fresh air, transfusions, force fluids and alkalies (to alkalinize the urine), and intravenous glucose; later treat the anemia with iron and liver extract.

3. *Arsenic (other than arsine)*

Is present in lewisite and in ethylchlorarsine and may be absorbed through the skin. Causes gastrointestinal upsets with hematemesis, melena, diarrhea, and jaundice. The diagnosis is based upon the above symptoms plus a concentration of arsenic greater than .1 milligram per liter of urine. Treat the patients symptomatically. Prevent additional absorption by draining bullae.

4. *Carbon Monoxide*

Interferes with oxygen transport by formation of carboxyhemoglobin. It penetrates the civilian gas mask. Anoxemia (like altitude sickness) resulting in headache, throbbing in the temples, vertigo, yawning, dullness, lack of visual acuity, weakness, coma, subnormal temperature, hypotension, and death.

Diagnosis: History of exposure, cherry red color of the blood.

Treatment: Fresh air, artificial respiration, oxygen, rest, blankets, warm drinks, and blood transfusions.

BIBLIOGRAPHY

1. "Medical Aspects of the Chemical Warfare Agents as Related to Civilian Defense," by College of Medicine, University of Cincinnati.

2. "Protection Against Gas," by United States Office of Civilian Defense.

CONCERNING ROCKY MOUNTAIN SPOTTED FEVER

During recent months complement fixation tests for Rocky Mountain spotted fever and endemic typhus fever have been developed and found by actual field trial to be quite specific for these diseases. The tests are as easily performed as the quantitative complement fixation tests for syphilis and should simplify the problem of diagnosis of these diseases. A positive test for either of the diseases means that the patient has the disease or has had it some time in the past.

The National Institute of Health has been kind enough to provide the Tennessee Department of Public Health with a limited amount of the antigens. The department now is able to offer this diagnostic service to physicians in the state.

Physicians may send specimens of blood in five to ten cubic centimeter amounts from patients who are suspected of having Rocky Mountain spotted fever or endemic typhus fever or from patients on whose blood a positive agglutination with Proteus X-19 in a dilution of 1.160 or above has been obtained to the Tennessee Department of Public Health, Division of Laboratories, 420 Sixth Avenue, North, Nashville 3, Tennessee, requesting that a complement fixation test be performed. These tests will not be performed in the branch laboratories at Johnson City, Knoxville, Chattanooga, Jackson, and Memphis.

Usually these tests do not become positive before the middle of the second week of the disease and, therefore, the blood specimen should not be collected until that time.

TRAUMATIC PSEUDOCYST OF THE PANCREAS*

CARRINGTON HARRISON, M.D., AND FRED COOPER, M.D., Nashville

During the past decade increasing interest has been shown in diseases of the pancreas, especially those amenable to surgical treatment. This organ does not lend itself especially well to operative procedures primarily because of its location and also because wounds of the pancreas do not heal with the same ease as those of other abdominal organs.

Bozeman in 1881 was the first to operate successfully upon a patient with a pancreatic cyst. Since that time numerous reports of operations for cyst of the pancreas have appeared in the literature, but only within the past few years has the diagnosis been made with accuracy preoperatively.

Pancreatic cysts have been classified as:

1. Retention
2. Proliferative
   a. Cystic adenoma
   b. Cystic epithelioma
3. Parasitic (Hydatid)
4. Congenital
5. Hemorrhagic
6. Pseudocysts

This paper is concerned with only pseudocysts of the pancreas of traumatic origin. Pseudocysts are not situated in the substance of the pancreas, but are in the immediate neighborhood, usually in the lesser peritoneal sac. These "cysts" are usually the result of either previous necrosis or injury to the pancreas from trauma. After a break occurs in the substance of the gland, there is an escape of pancreatic secretions or inflammatory exudate into the lesser peritoneal cavity, and with sealing of the Foramen or Winslow a cyst develops. The "cyst" wall has, therefore, no epithelial lining. The contents of the "cysts" are composed of varying amounts of blood, pancreatic secretion, inflammatory exudate, and necrotic material. The presence of all three of the pancreatic ferments is only suggestive of its pancreatic origin, unless a large quantity of trypsin is present, since any cyst containing blood may contain these ferments.

Case Report

The patient, E. B., an eighteen-year-old white man, was admitted to Vanderbilt Hospital, giving history of having been injured seven months previously when a heavy log fell on him and rolled along his chest, abdomen, and hips. The patient became immediately breathless and suffered some pain in the chest and hip. Dyspnea was only temporary and the patient was helped to his feet without losing consciousness. Roentgenographic examination at this time revealed fractures of several ribs, pneumothorax on the right and a fracture of the pubis. The patient was in bed for six weeks without noteworthy symptoms other than vague chest pain and occasional hemoptysis during the first week. When the patient left the bed, he noticed for the first time swelling of the abdomen which was limited to the left upper quadrant. The swelling had disappeared and recurred every few days until the time of admission to Vanderbilt Hospital. For the three weeks preceding admission there had been general abdominal distention of varying degree. Since the onset patient had lost fifteen pounds in weight and had noticed increasing weakness and slight unproductive cough.

On admission the patient appeared malnourished. Lungs were clear. The abdomen was distended asymmetrically with fluid. There was a prominence and tenderness of the left upper quadrant. Paracentesis was performed midway between the umbilicus and the symphysis; 500 cubic centimeters of pink, clear fluid, the specific gravity of which was 1.012, was removed.

Within four days of the time of admission the general abdominal distention greatly decreased, and a fairly well-defined fluctuant mass could be felt in the left upper quadrant extending into the left flank and down as far as the umbilicus. Roentgenographic examination of the gastrointestinal tract showed the intestines to be displaced

*From the Department of Surgery, Vanderbilt University, Nashville, Tennessee.

Case	Age	Sex	Type of Trauma	Preop. Period	Symptoms	Signs	Operation	P. O. Course
1 Senn	19	M	Fall	5 wks.	Vomiting, weight loss	Epig. and L. U. Q. mass	Cyst entered. 3600 cc. opalescent fluid removed	Wonnd healed within few weeks
2 Lloyd	20	M	Knocked down by horse	4 mos.	Epig. pain, vomiting, weight loss	Epig. tumor, abd. tense and painfnl to pressure	Incision made. Dark brown fluid obtained	Died few hrs. P. O.
3 Lloyd	27	M	Fighting, man kneeled on abdomen	6 wks.	Abd. pain, vomiting, emaciation	Epig. and L. U. Q. mass	Marsupialized, rubber drain, brown turbid fluid	Recovered uneventfully
4 Kluenkampff	39	M	Violent blow	6 mos.	Severe pain at time of injury	Tumor present	Marsupialized, 2400 cc. of fluid	
5 Cushing		M	Blow on abd.	5 wks.			Evacuated, drained	Sinus healed 27 days P. O.
6 Deaver (Fisk)	35	M	Blow on abd.	8 mos.	Colicy epig. pain	Abd. tumor	Drained	Recovered
7 Ransohoff	38	F	Fell on door sill	14 yrs.	Abd. pain, vomiting	Abd. distended, fluctnant tumor	Marsupialized, 3000 cc. chocolate material removed	Recovered in 4 weeks
8 Baldwin (Moore)	21	M	Fall on abdomen	2 mos.	Severe pain at time of injury	Tumor distension	Marsupialized	Recovered in 3 years
9 Baldwin (Thomas)	42	M	Railway collision	1 yr.	Abd. pain	Tumor, abd. tenderness	Marsupialized	Died 5 hrs. P. O.
10 Hall	21	M	Lifting heavy weight	19 wks.	Diarrhea, epig. pain, weight loss, anorexia, indigestion	Large cystic mass, abd. tenderness	Marsupialized, 23 pts. of thick chocolate fluid	Died 17½ days P. O.
11 Dyde	13	M	Horse fell on abdomen	10 days	Epig. fullness indigestion	Epig. fullness	Drained 7000 cc. clear fluid	Healed in 35 days
12 Barker	28	M	?	?	?	?	Drained	Recovered
13 Kellock	11	F	Kicked by horse	6 mos.	Asymptomatic	Tense, fixed nontender, L. U. Q. mass	Marsupialized, tube inserted	Recovered in 24 days
14 Morley	?	M	Hit by shell fragment	3 wks.	Aching epig. pain, weight loss	Tender, tense round abd. mass	Drained through left loin	Recovered
15 Stoney	?	M	Bomb shell wonnd left loin	10 mos.	Swelling of abdomen	Rounded epig. and L.U.Q. mass	Marsupialized, 3000 cc. of yellow flnid	Recovered, drained 3 wks.
16 Besley	?	M	Railroad wreck	3 wks.		Firm fixed epig. tumor	Drained	Complete recovery
17 Besley	Child		Run over by wagon	10 days		Small L. U. Q. mass	Drained	Complete recovery
18 Besley	Child		Run over by wagon		Mass 23 days after injury	L. U. Q. mass	Drained	Complete recovery
19 Besley	Child		Run over by wagon		Tnmor 12 days after injury	L. U. Q. mass	Drained	Complete recovery
20 Jones	18	M	Caught by overturned wagon	5 mos.	Vomiting	Cystic nontender mass	Marsupialized	Wound healed 25 days
21 Mahorner - Mattson	27	M	Auto accident	5 mos.	Abd. pain and swelling	?	Drained	Drained for 3 months, recovered
22 Mahorner - Mattson	30	M	Struck steering wheel	7 mos.	Abd. swelling		Drained, clear fluid	
23 Mahorner - Mattson	10	F	Railroad wreck	1 yr.		Epig. mass	Explored 1000 cc. of hemorrhagic fluid	
24 Mahorner - Mattson	11		Anto accident	3 mos.			Drained 1000 cc. of cloudy fluid	
25 Mahorner - Mattson	11	M	Fell while running	38 days	Abd. pain	Upper abd. enlarged	Drained 6000 cc. of bloody fluid	
26 Mahorner - Mattson	25		Auto accident	6 days		L.U.Q. mass	Cyst fonnd	
27 Judd				2 mos.			Drained three times before being seen by Dr. Judd	
28 Judd (Mann)		M	Struck in abdomen	3 mos.	Indefinite L. U. Q. pain	Cyst	Drained	Sinus healed in 18 months

Case	Age	Sex	Type of Trauma	Preop. Period	Symptoms	Signs	Operation	P. O. Course
29 Drennen	1	M	Run over by wagon	2 mos.	Epig. fullness	Tense, fixed, globular swelling	Marsupialized, 3 pts. of fluid	Entirely well in 17 days
30 Hamilton	10	F	Fall	10 wks. 13 wks. 21 wks.	Pain in L. U. Q. abd. swelling	Large abd. tumor	Drained at 3 operations	Drainage ceased in 7 months, recov.
31 Bouman	27	F	Fall	1 yr.	Upper abd. pain	Nontenter, L. U. Q. mass	Cyst excised	Complete recovery, well at end of 7 years
32 McWhorter	21	M	Fell from horse	3 ½ mos.	Colicy epig. pain, weight loss		Drained	Drainage ceased 8 wks. recovery
33 Plmmmer (McWhorter)	24	M	Bullet wound near pancreas	6 wks.	Nausea, vomiting		Drained 3000 cc. of yellow fluid	Uneventful recovery within one month
34 Kahlke (McWhorter)	21	M	Fell from horse	4 mos.	Colicy epig. pain, weight loss		Drained	Died 8 weeks P. O.
35 Richter (McWhorter)	6	M	Run over by wagon	2 wks.		Upper abdomen tumor	Drained 8 ozs. fluid	Drained for 5 weeks, well 15 years later
36 Jones (McWhorter)	32	F	Run over by auto	11 days	Vomiting, fullness	Abd. tumor 7 days after injury	Drained 1500 cc. bloody fluid	Well 5½ mos. P. O.
37 McWhorter	24	M	Bullet wound near pancreas	6 wks.	Nausea and vomiting	Abd. mass	Drained 3000 cc. of yellow fluid	Recovery 1 mo. P. O.
38 Friedenwald - Cullen	56	M	Blow upon abdomen	3 yrs.	Colic at intervals, nausea, vomiting, weakness, weight loss	L. U. Q. mass	Marsupialized, 2500 cc. of dark fluid	Sinus healed in one year
39 Van Urk	24	M	Struck in epig. by by wheelbarrow	1 mo.	Increasing abd. fullness	L. U. Q. mass	Drained 2000 cc. of straw fluid	Drained 4 wks., recovered
40 Warnock	7	M	Crushed by cart	12 days	L. U. Q. pain, vomiting	Epig. swelling, tenderness	Drained	Complete recovery in 5 weeks
41 Newton	30	M	Crushing force to back	24 hrs.	Abd. pain	Generalized epig. tenderness	Pancreas completely divided, resutured. Reoperated 1 month later and marsupialized for recurrence of cyst	Recovered
42 Snead	27	F	Struck by surf board	3 mos.	Pain, nausea, weakness	Abd. mass	Cyst excised 1000 cc. clear viscid fluid	
43 Stevenson	58	M	Trampled by horse		Upper abd. pain, distension	Abd. distended	Marsupialized, tube inserted, 1000 cc. of milky fluid	Uneventful, complete recovery
44 Angel	35	F	Fell on plow handle	17 yrs.	Fullness, weight loss	L. U. Q. mass	Marsupialized	Recovered 2½ months P. O.
45 E De Benardi	15	M	Struck in epig. by oar	10 days	Nausea, vomiting, epig. pain	Upper abd. mass, tenderness	Drained	Perfectly well several months P. O.
46 Jones, T. E.	8	M	Fell on bicycle handle	38 hrs.	Severe abd. pain, pain in left shoulder	Rigid abd.	Drained. Lesser sac filledwith dark fluid	Recovery 10 weeks P. O.
47 Murray (Primrose)	9	M	Run over by wagon	5 wks.		Lesser sack distended		Recovered
48 Koucky-Beck-Todd	9	M	Struck in upper abd. by gate	8 days		Large epig. mass	Drained 2000 cc. of blood	Died 7 hours P. O.
49 Koucky-Beck-Todd	54	M	Kicked in abdomen	2 wks.	Sharp abd. pain, abd. swelling, sudden severe pain with nausea and vomiting day of admission	Abd. distended, rigid, tender, absent peristalsis	Marsupialized, packed with gauze, 5000 cc. dark brown fluid	Died 3rd P.O. day
50 Koucky-Beck-Todd	19	F	Auto accident	16 days	Severe R. U. Q. pain, vomiting, hiccoughs, 16 days after injury	Abd. distended, rigid, tender, epig. mass	Drained 1000 cc. old blood	Died 10th P. O. day
51 Koucky-Beck-Todd	40	M	Struck in epig. by baseball	4 yrs.	Epig. pain and tenderness	Epig. mass, rigidity	Marsupialized, packed, 1500 cc. of dark brown impissated bile. Diffuse peritonitis	Died 3rd P.O. day

to the right and the stomach to be anterior to the mass.

Operation.—Immediately preceding operation, the mass in the left upper quadrant was no longer palpable and the general abdominal distention had increased. When the abdomen was opened, a large quantity of thin, clear, reddish brown fluid was aspirated from the peritoneal cavity. No tumor was demonstrable and no abnormalities of the viscera were found other than the jejunum. Near the ligament of Treitz there were several loops of jejunum which were mutually adherent and which showed some edema of their walls and obviously dilated lymphatics on the serosal surface. There were a few enlarged lymph nodes in the mesentery. The cause of these findings was obscure. Some of the adhesions were divided and the abdomen was closed.

Following operation the abdominal distention recurred in the course of a week as did also the cystic mass in the left upper quadrant. A second laparotomy was performed. On entering the peritoneal cavity there was found presenting between the stomach and tranverse colon a large cystic mass extending from the diaphragm to the pelvis. The wall of this "cyst" was thin and white. About four liters of clear fluid were removed from this "cyst." Examination of the inner aspect of the "cyst" showed the pancreas to lie in its posterior wall, the left half of the pancreas being completely separate from the right half and in communication with the cyst. The distal half of the pancreas and a large part of the contiguous "cyst" wall were removed. The abdomen was closed without drainage.

Microscopic examination of the "cyst" wall showed it to be composed of fibrous tissue without an epithelial lining.

The postoperative course was uneventful. The patient is well and strong today, sixteen months after operation. There has been no further abdominal distention.

In reconstructive analysis of this case it seems that the probable course of events was as follows: When the crushing force of the log was applied to the abdomen at the time of injury, the center of the pancrease, caught between the first (?) lumbar vertebra and the log, was severely damaged. There was immediate hemorrhage into the damaged portion of the organ, producing a hematoma. Subsequently by necrosis of the injured portion of the gland with accumulation of pancreatic juice from the distal portion of the pancreas, a large pancreatic pseudocyst was formed. The "cyst" increased in size, slowly causing the tumor in the left upper quadrant, first noticed by the patient six weeks after the injury. The general abdominal distention and most of the fluid in the greater peritoneal cavity can be accounted for by spontaneous rupture occurring the night before the first operation, thus obscuring the location of the "cyst" at the time of the first operation.

A review of the literature reveals fifty-one cases of pseudocysts of the pancreas which, presumably, were the direct result of trauma.

The injury is usually in the form of a crushing force to the upper abdomen with, presumably, compression of the pancreas against the first (?) lumbar vertebra. At the time of the accident extreme pain is usually experienced, accompanied by nausea, vomiting, weakness, and shock. Although in a few cases only mild symptoms resulted, a physician was usually summoned and the patient frequently hospitalized for several days. At the time of the accident examination reveals epigastric tenderness and muscle spasm, these findings gradually subsiding over a period of several days.

As the "cyst" develops and enlarges symptoms ascribable directly to the presence of the mass and its mechanical interference with the functions of surrounding organs become manifest. Upper abdominal fullness with gaseous distention, loss of appetite, nausea, and vomiting are at first present followed by a cramping or aching epigastric discomfort. As the condition advances weakness, weight loss, and general debility follow. It is at this time that the patient may notice an abdominal mass.

Examination reveals a mass in the upper abdomen corresponding to the location of the lesser peritoneal sac. The mass is cystic, globular, smooth, usually slightly movable,

but not displaceable and may or may not be tender to palpation. The heart may be displaced superiorly and laterally. Roentgenographic examination reveals deformities of the stomach and colon produced by an extrinsic mass.

The patient may or may not show a mild systemic reaction with elevation of temperature and leucocytosis.

Diagnostic aspiration of the mass is contraindicated because of the likelihood of traversing the stomach, small bowel, or colon.

Various operations have been employed in this condition. The incision most frequently used is an upper left rectus incision, although a flank approach has been advocated by a few. As the peritoneum is entered only infrequently is any free fluid encountered. The mass may then be presenting between the stomach and colon, above the stomach or below the transverse colon. After adequate exposure of the mass and removal of the contents, exploration of the "cyst" may reveal a small open cavity in the substance of the pancreas or more extensive injury to the gland.

The ideal procedure is complete extirpation of the "cyst" wall. Unfortunately, however, this is not always possible, due to the intimate relation with the surrounding structure. Marsupialization is then the procedure of choice with the insertion of rubber drains. The procedure of anastomosing the "cyst" with the intestinal tract as recently advocated for certain other types of pancreatic cyst is rarely a necessity. If the surgeon is unable to remove the "cyst" and must resort to marsupialization, long-continued drainage from the wound may be expected. Drennen recommended irrigation of the sinus with 1:10,000 silver nitrate to expedite closure of wound. In a case thus treated, Drennen reported drainage to persist for only seventeen days.

The present case differed from the above because of the fact that the injury resulted in a complete division of the pancreas at approximately its midportion. In such instances the distal portion of the divided pancreas should be removed. In Newton's patient, which is the only case similar to the one presented, the divided pancreas was not removed, but was sutured and another operation with marsupialization was necessary four weeks later.

Summary and Conclusion

A case of traumatic pseudocyst of the pancreas is presented as an example of a rare but fairly well-defined clinical entity. The points of importance which aid in the diagnosis are:

1. History of abdominal injury which may have occurred weeks or months before the patient presents himself.

2. Appearance of a tumor in the left upper abdomen.

3. Symptoms are those produced by the mechanical interference of a mass with the function of the surrounding viscera.

4. Increasing weight loss and weakness.

5. Amount of abdominal pain is variable.

The operations of choice are discussed.

Permanent, complete cure is to be expected.

BIBLIOGRAPHY

1. Senn. American Journal of Medical Sciences, 90: 17, July, 1885.

2, 3, 4. Lloyd, Jordan M. B. British Medical Journal, 2: 1051, November, 1892.

5. Cushing, H. W. Boston Medical and Scientific Journal, 138: 429, May 5, 1898.

6. Fisk, A. L. Annals of Surgery, 32: 708, 1900.

7. Ransohoff, J. American Medicine, page 138, July 27, 1901.

8, 9. Baldwin. Ohio Medical Journal, IV, 547, 1908.

10. Hall, R. B. New York Medical Journal, 93: 273, 1911.

11. Dyde, C. B. Colorado Medicine (Denver), 1916.

12. Barker, A. E. Proceedings of Royal Society of Medicine, 1910, III, Clinic Section 121.

13. Kellock, T. H. Proceedings of Royal Society of Medicine, 1913, VI, Section of Disabled Children 14.

14. Morley, J. British Medical Journal, 1: 341, 1918.

15. Stoney, R. A. British Medical Journal, 1: 427, 1918.

16, 17, 18, 19. Besley, F. A. Transcript of Western Surgical Association, page 235, 1913.

20. Jones, R. W. Wisconsin Medical Journal, 17: 183, October, 1918.

21, 22, 23, 24, 25, 26. Mahorner, H. R., and Mattson, H. Archives of Surgery, 22: 1018.

27, 28. Judd. Minnesota Medicine, IV, 75, 1921.

29. Drennen. Annals of Surgery, 76: 488, 1922.

30. Hamilton. Surgery, Genecology, and Obstetrics, 35: 655, 1922.

31. Bouman, H. A. H. Minnesota Medicine, 1922, 5, 697.

32, 33, 34, 35, 36, 37. McWhorter. Archives of Surgery, 11: 619, 1925.

38. Friedenwald, J., and Cullen, T. S. American Journal of Medical Science, 172: 313-334, September, 1926.

39. Van Urk, Thomas. Military Surgeon, 63: 315, August, 1928.

40. Warnock, H. A. British Medical Journal, 1: 104, January 14, 1929.

41. Newton. Surgery, Genecology, and Obstetrics, 48: 808, May, 1929.

42. Snead, L. O. American Journal of Roentgenology, 30: 503-507, October, 1932.

43. Stevenson, O. W. Canadian Medical Association Journal, 36: 289, March, 1937.

44. Angel, E. Southern Medicine and Surgery, 100: 57, February, 1938.

45. E de Benardi. Ann. Di. Radiol. Diag., 13: 435-442, August-October, 1939.

46. Jones, T. E. Cleveland Clinical Quarterly, 7: 132, April, 1940.

47. Primrose, A. Surgery, Genecology, and Obstetrics, 34: 431, 1922.

48, 49, 50, 51. Koucky, J. D.; Beck, W. C.; Todd, M. C. Surgery, Genecology, and Obstetrics, 73: 113, July, 1941.

CERTAIN COMPLICATIONS OF TREATMENT*

ALBERT WEINSTEIN, M.D., F.A.C.P., Nashville

A few years ago emphasis in the care of patients lay in the main in the therapeutic effort. Recently, more attention in medical teaching is directed toward greater accuracy in diagnosis with less attention to the problems of treatment. This latter view has certain points of recommendation since the etiology and pathological physiology of disease are visualized more correctly, but to the young physician beginning the practice of medicine a sense of uncertainty and insecurity results. As experience with various therapeutic procedures is acquired, the complications of treatment become more and more apparent. It becomes worth while, therefore, from time to time, to call to mind certain hazards attendant upon some of the more frequently used remedies.

The most recent, and probably most valuable, addition to our medical effort is the sulfonamide group of chemical agents. Their value in the treatment of many different types of infectious disease is of incalculable value. Certainly the medical student of the present, as well as the man in practice, immediately begins to consider which one of the "sulfa" drugs is to be used as soon as he meets a problem involving the treatment of an infectious disease. The many and varied possible complications which may arise from the use of these drugs have been reported again and again, blood dyscrasias, renal and cardiac complications, and dermatological changes comprising the majority of the featured complications. The one complication I wish to mention here is the sensitization which results in the development of fever. Although this rarely is seen on initial administration of the drug, it is noted not uncommonly in the repeated use of these drugs, particularly sulfathiazole. The febrile reaction may be brisk and reach seriously high degrees of elevation to 105 degrees or 106 degrees. It, therefore, becomes clear that there should be a definite indication for the use of the drug when it is given. The "sulfa" drugs should not be used for the treatment of colds, influenza, and obscure fever; and indeed serious thought should be given before using them in the treatment of the common sore throat even when the streptococcus is demonstrated as the etiologic agent. This same patient, now sensitive to the drug, later may become infected with a more serious virus which responds best to this particular type of "sulfa" drug whose use is now prohibited. The common hazards attendant to the use of insulin are generally understood—namely, the symptomatology of hypoglycemia. There is one group of hypoglycemic responses, particularly in the older age group, which is not too well remembered—that is, the cardiovascular complications. Precordial pain following insulin induced hypoglycemia is described and has been called "insulin angina." The seriousness of this complication is understandable and indeed fatal coronary thrombosis has been described in this situation. The mechanism supposedly is the unusually decreased supply of sugar to the myocardium due to the combination of hypoglycemia and the coronary arteriosclerosis which exists in this age group.

Mrs. E., age seventy-eight, has been a mild diabetic for twenty-five years. Recently she became quite nervous, developed palpitation, became weak and lost weight. When examined she was found to have a velvety, reddened skin, a fairly firm, smooth thyroid, chiefly substernal in position, arteriosclerosis, cardiac enlargement, and auricular fibrillation. In addition, the mild diabetes was now quite severe with a heavy glycosuria, acetone and diacetic acid in the urine, and a blood sugar of almost 400 milligrams per cent. It was clear that she had developed hyperthyroidism which had influenced her heart to develop auricular fibrillation and, as is always true, had caused the diabetes to become greatly aggravated. In view of her age, the retrosternal situation of the gland, and the general vascular disease, it was decided to treat the hyperplastic

*Read before the Nashville Academy of Medicine in April, 1943.

thyroid with X-ray rather than surgery. This was done and insulin in divided doses in the amount of 120 units a day was given. Even with this sizable intake of insulin, glycosuria and hyperglycemia persisted and was tolerated since hypoglycemia was feared. However, in spite of these precautions, one afternoon she became nauseated and vomited her noon and evening meals. Due weight was not given these facts. Her late afternoon urine specimen was sugar-free. At about nine o'clock that night, while lying quietly, she developed pulmonary edema. The intern recognized this and rescued her from this dilemma, using sugar by mouth in addition to morphine and aminophyllum intravenously. Unfortunately, a blood sugar was not obtained and, consequently, we cannot positively state that hypoglycemia was causative, but the circumstantial evidence is quite good. Incidentally, the patient is now doing much better in so far as these conditions are concerned, has responded to X-ray and lugol's solution, and the insulin requirement is now about one-third that of the former level. The cardiac status is now good and no recurrence of pulmonary edema has occurred.

Mrs. C., aged sixty-eight, has diabetes, arteriosclerosis, hypertension, and cardiac enlargement, but had never suffered any precordial pain. In view of progressive changes in the retina and loss of vision, it was decided to bring her diabetes under better control. She was accordingly admitted to the hospital and this regulation was accomplished gradually. However, one day after failing to eat her lunch, about 2:00 P.M. she began to complain of substernal oppression, some dyspnea, and apprehension. The pain radiated into the left shoulder. She was given sugar by mouth and within a few minutes felt quite all right. Again, in the excitement, blood sugar was not obtained so the evidence is merely circumstantial. However, she had had no similar attack prior to this, nor has one been experienced since. In any event, the point of emphasis is clear. Insulin as a therapeutic agent is often a lifesaving means, but its record is not entirely clear of criticism. It must certainly be used with due caution in the elderly arteriosclerotic diabetic.

Another hormone to be discussed is thyroid extract. Again we have a valuable therapeutic agent, but again there are hazards associated with its use. Mrs. E., seventy-two years of age, was found to have general arteriosclerosis and myxedema with a basal metabolism rate of forty per cent. When given thyroid extract, the skin became warmer, the pulse rose to normal and the basal metabolic level reached normal. She, however, became delirious. When the thyroid extract was decreased in amount, although the basal rate fell to below normal, the mental faculties returned. It became clear that the cerebral blood supply was adequate at the lower metabolic level, but was grossly inadequate when the metabolism demands of the cells of the cerebral cortex were increased. We finally had to be content to have a normal mental response in a patient with myxedema rather than a good physical response associated with an undesirable mental picture.

Recently, a cat wandered into a local schoolroom and scratched and bit several children. When the animal died and was examined negri bodies were demonstrated in its brain. Consequently, rabies vaccine was advised. One of the victims was a boy of sixteen years. After receiving the eleventh injection of a contemplated series of fourteen, he noted some trouble in urinating, and during the night developed complete urinary retention. In addition, the abdominal and cremateric reflexes disappeared and he developed weakness of his legs and inability to defecate. The deep reflexes became sluggish. The Babinski reflex was questionably positive. A lumbar puncture revealed a spinal fluid under normal pressure with a cell count of eighty lymphocytes, an increase in protein content, and a normal sugar value. After a period of one week, during which he was treated symptomatically, he began to recover, and during the next two weeks there followed complete restoration of all functions to normal.

From the various Pasteur institutes, the

mortality rate following vaccine varies between .23 and .49 per cent. In Paris over 400 patients were treated and none contracted rabies. However, Snapper[1] presented some interesting statistics from China. At the Peiping Union Medical College, between 1923 and 1940, 383 patients who had been bitten by rabid dogs were seen. Of these, 201 were vaccinated; 182 were not vaccinated. Of the 201 vaccinated individuals, nine developed rabies; among the 182 nonvaccinated individuals, eighteen developed rabies. Among the 182 vaccinated patients, five developed neurological complications, and of these five, two died—one with a landry's type of ascending paralysis, and the other with encephalitis. In spite of these hazards, the memory of a single patient dying with rabies will always stimulate one to treat the exposed individual without hesitation.

The use of sedatives is important and an everyday practice on the part of all of us. Again the elderly individual may not handle them well, particularly the babiturates and the bromides.

Mrs. M., age fifty-three, had hypertension for several years. Three months prior to admission she had a stroke and developed a left hemiplegia. Because she was nervous, the local physician gave a prescription for triple bromides. Since a little was good her husband, who had not been properly advised, gave a lot. About three weeks after the stroke, she became restless, delirious, combative, and unmanageable. When examined, I felt at first, that this was the natural course of events in an individual with arteriosclerosis and hypertension, although the course of the supposed mental deterioration seemed unusually rapid. After two days of observation I finally saw a faint rash. I then was oriented clinically and found the blood bromide level to be 185 milligrams per cent. Appropriate treatment produced the usual remarkable result.

Bromides are of tremendous assistance in the care of the nervous, but in the older patient apparently as a result of poorer kidney function or greater cerebral nutritional demands, bromide intoxication with its associated mental changes, obstipation and dermatitis may occur. Fortunately, the treatment is simple, the forcing of chloride intake (sodium chloride) to the extent of ten grams daily, and the result is usually good.

Another sedative to be used with understanding is morphine. Not so much because some people are sensitive to it and suffer gastrointestinal irritation, or because of its tendency to cause addiction, but in the elderly patient it may precipitate urinary retention and in the asthmatic may prove a fatal agent due to dampening of the cough reflex and to an increase in the degree of bronchial spasm.

Mrs. G., age forty-eight, had usually enjoyed good health. About one year ago wartime circumstances had taken her to Mobile, Alabama, from her home at Old Hickory. Recently, she had returned to Old Hickory and had commented a great deal on her love of this town and her dislike of the present home in Alabama. She had a backache and her husband obtained and applied chloroform liniment. A general physical examination was done by the local physician and nothing abnormal was found. One day the husband noted that while he was rubbing his wife's back, she held the opened bottle close to her nose. For the next twenty-four hours, she continued to inhale deeply from the bottle and was seen to apply the liniment to her nostrils and upper lip. She was never observed to drink any of the liniment. Within another twenty-four hours, she was jaundiced and within twenty-four hours more she was dead. When examined by me the day before her death, she was deeply jaundiced, unconscious, the abdomen was distended, but no free fluid could be demonstrated. The liver could not be felt and the liver dullness was decreased. The icteric index was reported to be 300 units with a quantitative Van den Bergh of thirty. The urine contained bile and the stools were lighter than normal in color. There was no fever and the white count was normal.

Although no autopsy was obtained, in view of the rapidity of the illness, it seems hard to escape the diagnosis of acute necrosis of the liver due to chloroform poison-

ing. Chloroform compound liniment contains three to four per cent chloroform. Chloroform liniment, twenty-five to thirty per cent chloroform by volume. Between two to four cubic centimeters by mouth will produce fatal liver damage in a dog. The human lethal dose is not fully known. Certainly this benign liniment should always be well labeled and its hazards discussed with the patient.

"Force fluids" is good advice, but one should always specify the amount to be taken. Rountree has emphasized the hazard of water intoxication. In addition to the chemical changes which may follow excess loss of salt, the circulation may be overloaded and failure of the heart may follow. Another bit of simple advice which may be hazardous is bed rest. Statistics confirm the clinical experience that too complete bed rest will often be associated with slowing of the circulation with resultant thrombosis in cerebral or coronary vessels. This is particularly true if a marked fall in blood pressure is associated with the bed rest.

Reduction diets may injure the patient if the loss of weight proceeds too rapidly or if the vitamin, or mineral elements in the diet, are deficient to the extent that avitiaminosis with tissue damage occurs.

One of the common abuses in the employment of digitalis is its use in the treatment of simple tachycardia. Digitalis is, of course, of great value in the treatment of congestive heart failure, but may cause great harm and even death if used indiscriminately in patients who have suffered a recent occlusion of a coronary vessel unless auricular fibrillation, or congestive heart failure, is present. Ordinarily, if auricular fibrillation is present, great help can be predicted unless hyperthyroidism is present. Pushing digitalis too vigorously in this situation may result in nausea, vomiting, and general discomfort when the use of lugol's solution would accomplish infinitely more.

The treatment of headaches is an everyday obligation. Caution should be exercised in the use of acetanilid compounds, of which Bromo-Seltzer is the most common offender. A too generous intake of acetanilid results in the development of sulphemoglobinemia.[2] This condition, in turn, is associated with the development of headache and consequently the patient is placed on a merry-go-round of therapy which flames the intensity of the headache rather than helping it. In short, acetanilid addiction is the end result.

The treatment of arthritis is a difficult task since the etiology of this disorder is not known. Consequently, many different types of treatment have been attempted with varying degrees of success. For the past five years the use of gold salts, either intravenously, or intramuscularly, has become quite popular, and I might add deservedly so. There is no doubt that this is a very good form of treatment for selected cases of rheumatoid arthritis. It has been well known that complications may arise from this form of treatment. They are mainly those related to the blood-forming organs, the gastrointestinal tract, the kidneys, and the skin. With these facts in mind the following case is of interest.

Mr. C., age forty-six, had a recurring arthritis which had resisted many different forms of treatment. Accordingly, it was agreed that gold salts should be tried. He was questioned about itching of the skin and watched for complications before each injection. After he had received five injections of gold sodium thisulphate, he produced a brilliant exfoliative dermatitis. He had suffered for years with a chronic itching of the perineum and, therefore, the inquiries relative to itching did not impress him since the itch had been a part of his make-up for many years. He is recovering slowly. This is the second time exfoliative dermatitis has been observed to have occurred among 100 patients treated with gold salts.

I am sure that the examples of complications of therapy, which I have described, were in the main preventable. Some complications of therapy have to be reckoned with always, and usually must be accepted as unavoidable hazards. No doubt each of you here can think of a treatment and its complication which appeal to you as more interesting and more important. That statement I would not question. I wish to emphasize that I merely have selected a few

complications of interest to me. It is also quite evident that I am not a therapeutic Nihilist. I certainly believe in the treatment of disease and because a particular treatment may be fraught with hazard, that is not sufficient reason for its abandonment.

In closing there are a few broad conclusions to be salted down:

1. The treatment of disease has not received adequate emphasis in the teaching of students of medicine, both undergraduate and graduate.

2. There are certain hazards in the treatment of disease which should be borne in mind always. Some of these hazards are grave enough to give pause in the use of these agents, but hazards do not necessarily nullify a particular treatment. An understanding of the possible complications and a constant alertness often render hazardous treatments relatively innocuous.

3. There are some complications of therapy which, although quite serious, are to be accepted as "hazards of war" since the advantages of the treatment are quite enough to outweigh all undesirable side effects.

4. I believe that therapy could be simplified, particularly for the beginner, by a more satisfying standardization and limitation of the number of various medicants. For example, the recent publication by the committee of the American Medical Association of the daily vitamin requirements has caused the various drug houses to conform to these standards. This has relieved the physician of the burden of searching for a vitamin preparation adequate in all respects. Think how nice it would be if all drug houses called their vitamin preparation: "Standard A, B, C, D, E Vitamin Capsule"—Upjohn—Parke Davis—Lilly, etc. Think how much nicer it would be if the council brought forth certain standard amounts of phenobarbital and limited its combinations so that, for example, belladonna and phenobarbital would read "Belladonna & Phenobarbital," with dosage stated. It would certainly be helpful if salicylates were labeled salicylates; digitalis labeled digitalis; and if douche powders, hormones, and nose drops were standardized and plainly labeled. I believe the pharmaceutical companies would appreciate being relieved of the trouble of having to coin their trademark names for their particular preparation which differs practically not at all from a dozen other preparations of a dozen other companies with a dozen different names.

REFERENCES

1. I. Snapper: Chinese Lessons to Western Medicine, 1941, page 141. Interscience Publishers, New York.

2. George A. Harrop, Jr., and Reginald L. Waterfield: "Sulphemoglobinemia." Journal of the American Medical Association, 95: 647-650, 1930, August 30.

SURGICAL TREATMENT OF PEPTIC ULCER*

G. TURNER HOWARD, JR., M.D., Knoxville

The surgical treatment of peptic ulcer has been the subject of considerable discussion in recent years, and subtotal gastrectomy has at last been accepted as the soundest method of treating certain types of gastric and duodenal ulcers. Although ulcers, as a rule, respond well to conservative or medical treatment, there are several complications which call for surgical intervention. If the patients neglect their medical regime they may get into serious trouble and need surgery. However, there are also some patients who, in spite of strict adherence to good medical treatment, develop severe complications requiring operation. Allen[1] states that in his experience at the Massachusetts General Hospital, about twenty per cent of ulcer patients come to surgery at one time or another.

No one type of operation should be applied to all cases of peptic ulcer. To advocate subtotal gastrectomy for nearly all ulcer patients, as some European surgeons have done, seems definitely too radical. Whereas, to advocate gastroenterostomy routinely, as was the tendency at one time in this country, is not logical because many of us have seen the recurrence of symptoms, recurrence of bleeding, marginal ulcers, gastrocolic fistulae and other complications following the injudicious use of this operation. However, gastroenterostomy should not be discarded because it still is the operation of choice in certain patients with obstructing ulcer.

The complications of peptic ulcer requiring surgical intervention are acute perforation, massive uncontrolled hemorrhage, the history of repeated hemorrhages, cicatricial obstruction of the pylorus, intractability on good medical treatment, and lesions suspicious of cancer.

Acute Perforation

Acute perforation is a severe catastrophe that may overtake any patient with a lesion on the free surface of the stomach or duodenum. The symptoms are usually sudden and characteristic. The patient may or may not give a history of previous attacks of epigastric pain relieved by food or soda. He is suddenly seized with severe agonizing epigastric pain which may soon become generalized or increased in the right lower quadrant of the abdomen, due to drainage into the right peritoneal gutter. There is usually a certain degree of shock, and the patient may be found either doubled up with pain or thrashing about. There may be marked vomiting or retching. Pain is sometimes referred to the shoulders due to diaphragmatic irritation. The patient's color is ashen, and he is cold and clammy with a subnormal temperature. The abdomen is usually tender throughout with boardlike rigidity in all quadrants or mostly in the epigastrium. Leucocytosis is present. X-rays taken in the upright position will usually show a gas bubble under the diaphragm which is diagnostic. This may also be elicited by percussion. There may be loss of liver dullness due to air under the diaphragm. The main conditions to be ruled out are renal colic, acute pancreatitis, acute cholecystitis, and ruptured appendix.

Acute perforation of an ulcer is one condition that demands immediate operation. The earlier the perforation is closed, the lower the mortality rate. If it is not treated early, the result is almost uniformly fatal.[2] Simple closure of the perforation by plication and the use of an omental tab to cover the hole is perhaps the best operation. This minimizes the danger of pyloric obstruction which may follow some of the more heroic procedures. Graham[3] merely fixes an omental tab loosely over the perforation, and has reported only two deaths in sixty patients treated by this method.[4] The abdomen should be very carefully suctioned out, particularly behind the liver and in the pelvis. Powdered, sterilized sulfathiazole should be sprinkled about and the abdomen closed without drainage. If drainage is employed at all, one should be careful not to put the drain down to the site of perforation since

*Read before the Knox County Medical Society, Knoxville.

this is very liable to produce a duodenal fistula.[1]

The anesthesia of choice is perhaps a high spinal, using a pontocaine-glucose mixture. Inhalation anesthesia is not tolerated very well and local infiltration does not allow much retraction or exploration. Postoperative treatment is very important and should include morphine by the clock, high Fowler's position, and intravenous fluids. Wangensteen suction should be used until active peristalsis and passing of gas has been restored.

Massive Hemorrhage

Massive hemorrhage occasionally occurs when the ulcer erodes into one of the larger blood vessels, and may be more common in the posterior wall ulcers. The hemorrhage may be entirely resistant to medical treatment and multiple transfusions, particularly in patients past the age of forty-five, when there is failure of contracture of the blood vessel and clot cannot be formed because of sclerosis.[1, 5] Such conditions are critical, and many of these patients will die of hemorrhage unless operation is undertaken. A transfusion should be given before operation, one during operation and one after operation in those that are actively bleeding. Many men do a partial gastrectomy at this time. This is the operation of choice if the patient's condition warrants it. However, there are some in such poor condition that a simpler procedure is indicated. In these cases opening the duodenum or stomach and plicating the ulcer bed with silk sutures to stop the hemorrhage may offer the best chance of recovery. If the duodenum cannot be closed without obstructing the pylorus, a posterior gastroenterostomy is done at the same time. Subtotal gastrectomy may be done at a later date.

The younger patients may, as a rule, be allowed to have their gastrectomy after they have recovered from the hemorrhage because ninety-five per cent of them will survive, whereas only seventy per cent of those past the age of fifty will live through the hemorrhage.[1] Nevertheless, because there will be an occasional patient under thirty years of age who bleeds to death from his ulcer, a vigilant eye must be kept on all such patients for the possibility of immediate surgery.

All patients who have had two or more gross hemorrhages should have a subtotal gastrectomy if they are good enough risks to stand it.[6] Statistics show an eighty per cent chance of getting another severe gastric hemorrhage which may be fatal, if there is a history of two or more previous hemorrhages.

Obstructing Ulcer

The ulcer of long standing may gradually produce so much scar tissue that the pylorus becomes obstructed or nearly so. The stomach gradually dilates, the patient begins to vomit and loses weight, but may not suffer from symptoms of activity in the ulcer. This usually occurs in the older patients, and gastric analysis may show normal or low-acid values, which is due to the effect of prolonged gastritis on the acid cells, according to Ochsner, et al.[7]

This is the one complication of ulcer that calls for posterior gastroenterostomy. Care must be taken to rule out pylorospasm. Sometimes with an active ulcer, there is almost complete obstruction due to spasm, which will be relieved when the ulcer yields to medical treatment. Allen[1] warns that even the old patients with obstruction and low acid may occasionally have a recurrence of activity of the ulcer, and should be kept on an ulcer regime. He believes that restoration of the function of the stomach allows return of the usual acid activity and thus brings about the earlier vulnerability of such patients. Needless to say, if the obstruction is associated with a high gastric acidity, and particularly if there are symptoms of ulcer activity, subtotal gastrectomy is the procedure of choice.

Ulcers Resistant to Medical Treatment

There are those ulcers that are resistant to the best medical treatment. These are not many, and represent about five per cent of ulcer patients, according to Allen.[1] Sometimes an ulcer may seem to be intractable, but the continuance of symptoms may be due to lack of cooperation on the part of

the patient. This factor must be considered before subjecting the patient to subtotal gastrectomy, which is the treatment for intractable ulcers.

When the ulcer is close to the pylorus or actually involves it, the condition resulting is similar to that of an anal fissure, the activity of the pylorus keeping the ulcer irritated and giving symptoms which may not respond to medical treatment. Those ulcers penetrating deep into the pancreas are found to be slow to heal and give frequent recurrences. Included in those resistant to medical treatment and subject to subtotal gastrectomy should be those large ulcers with extensive areas of gastritis around them and those that are difficult or impossible to distinguish from malignant ulcers by their position, action, and appearance in the X-ray.

Surgical Procedures

The amount of the stomach that should be removed in subtotal gastrectomy for ulcer has been discussed by several authors. Hunt[9] suggests that we be more specific in naming the operation according to the amount of stomach removed. Wangensteen[11] states that it takes the removal of about three-fourths of the stomach to reduce the acid enough to get the desired result in subtotal resection for ulcer. The ulcer itself, the vulnerable portion of the duodenum, the ulcer producing portion of the lesser curvature, and the pylorus should be removed. The mortality of this operation is reported by Marshall[8] to be 1.5 per cent in 196 consecutive cases operated on at the Lahey Clinic.

There are some cases in which the Finsterer[10] type of operation is best used. This is the so-called subtotal resection with exclusion, in which the stomach is transected proximal to the pylorus and turned in instead of resecting the upper part of the duodenum. This type of operation may be advantageously used in the densely adherent, penetrating duodenal ulcers which sometimes are next to impossible to resect. However, this operation must never be used where there is pyloric obstruction because in such cases the collection of secretions proximal to the pylorus breaks open the stump with consequent peritonitis. The Hofmeister modification of the Polya operation seems to be the most physiological type of procedure for subtotal gastrectomy as described by Marshall.[8] The stomach is lavaged the night before operation and the morning of operation. Intravenous fluids are given throughout the operation and a transfusion of 500 cubic centimeters of citrated blood is on hand for use during the operation or after it.

A left rectus muscle-splitting incision is made. The abdomen is explored. The stomach is elevated and the gastrocolic omentum is picked up and cut, thus opening into the lesser omental cavity. A finger is passed through the gastrohepatic ligament and a piece of sponge or rubber tubing is drawn underneath the stomach for traction. The vessels along the greater curvature are divided and ligated. The mesocolon containing the important middle colic vessels is bluntly dissected from the posterior wall of the stomach. The gastrohepatic omentum is divided, staying close to the stomach. Care must be exercised in dissecting the duodenum from the pancreas because many of the ulcers are very adherent to this region. The right gastric artery is next divided and ligated. The duodenal mobilization is completed and it is now divided between Ochsner clamps, care taken to leave as much duodenal stump as possible for safe inversion. The stump is closed by Connell suture of No. 0 chromic gastrointestinal catgut with an atraumatic needle. This is reinforced by a second row of interrupted Halsted mattress sutures of fine silk and then sutured to the pancreas with another row of silk sutures.

The left gastric artery is divided high on the lesser curvature, and the borders of the stomach are cleaned of omental tissue to allow proper inversion of the gastric wall and anastomosis with the jejunum. The jejunal loop required for anastomosis, thirty to forty centimeters from the ligament of Treitz, is brought up anterior to the colon and two-thirds to three-fourths of the stomach is resected by means of the von Petz clamp or by dividing the stomach with a

cautery between large Payr clamps. If the von Petz clamp is used, the upper two-thirds of the stomach pump is closed with a continuous suture of No. 0 chromic catgut over the metal clips and reinforced by a row of interrupted silk sutures. The lower one-third of the stomach opening is used for the anastomosis with the jejunum, making a stoma that will admit the tips of three fingers. The jejunal loop is attached to the stomach by interrupted silk sutures before the clips are removed from the portion of the stomach used for the anastomosis. The anastomosis is proceeded with, using an inside row of continuous chromic No. 0 sutures locking the posterior row, and using the Connell suture anteriorly, with an outside row of interrupted Halsted mattress sutures of silk. The jejunum is also sutured to the portion of the stomach stump previously closed over for added strength. The gastrojejunal angle is reinforced by suturing a tab of omentum to it.

The postoperative care should include Wangensteen suction and intravenous fluids for several days. Fluids are started by mouth on about the second or third postoperative day with the Levine tube clamped at longer intervals and a maintenance diet begun about the fourth or fifth postoperative day. The patient may find it necessary to start eating five or six meals a day for a while until his remaining stomach segment can take care of three large meals a day.

Summary

Subtotal gastrectomy has been worked out on sound principles and has been proven to be the method of choice for the treatment of most of the complications of peptic ulcer. About twenty per cent of ulcers are candidates for surgery at one time or another because of perforation, massive uncontrolled hemorrhage, history of repeated gross hemorrhages, obstruction, intractability, or suspicion of malignant degeneration. Acute perforation should be operated on at the earliest possible moment and should have the simplest procedure possible done with a thought to preventing obstruction later. Posterior gastroenterostomy is still the operation of choice for cicatricial obstruction in old patients with a low gastric acidity.

BIBLIOGRAPHY

1. Allen, A. W.: "Surgical Treatment of Duodenal Ulcer." Archives of Surgery, 44: 501-519, March, 1942.

2. Crile, George: "Perforated Ulcer: Diagnosis, Preoperative, Operative, and Postoperative Treatment." Surgical Clinicians of North America, Vol. 17, 1493-1501, October, 1937.

3. Graham, R. R.: "Perforated Ulcer." Surgery, Gynecology, and Obstetrics, 64: 235-238, 1937.

4. Graham, R. R.: "Technical Procedures for Gastric and Duodenal Ulcer." Surgery, Gynecology, and Obstetrics, 66: 269-287, 1938.

5. Walters, W., and Cleveland, W. H.: "Results of Partial Gastrectomy for Bleeding Duodenal, Gastric, and Gastrojejunal Ulcer." Annals of Surgery, 114: 481-491, October, 1941.

6. Marshall, Samuel F.: "The Technic of Subtotal Gastrectomy." Surgical Clinicians of North America, 19: 607-627, June, 1939.

7. Ochsner, A.; Gage, M.; and Hosoi, K.: "Treatment of Peptic Ulcer Based on Physiological Principles." Surgery, Gynecology, and Obstetrics, 62: 257-274, 1936.

8. Marshall, Samuel F.: "Subtotal Gastrectomy for Ulcer." Surgical Clinicians of North America, 22: 737-759, June, 1942.

9. Hunt, V. C.: "Principles Which Govern Extent of Gastric Resection for Duodenal Ulcer." Surgery, Gynecology, and Obstetrics, 73: 676-680, November, 1941.

10. Finsterer, H., and Cunha, F.: "The Surgical Treatment of Duodenal Ulcer." Surgery, Gynecology, and Obstetrics, 52: 1099-1114, 1931.

11. Wangensteen, O. H., and Lannin, B.: "Criteria of Acceptable Operation; Importance of Acid Factor." Archives or Surgery, 44: 489-500, March, 1942.

ACUTE ABDOMINAL SYMPTOMS RESULTING FROM BLACK WIDOW SPIDER BITE*†

MAJOR HARWELL WILSON, MEDICAL CORPS, A. U. S.

Because of the pronounced abdominal symptoms which are frequently associated with the bite of the black widow spider, it is desirable for all surgeons to be familiar with the syndrome in order that unnecessary operations may be avoided. Morton,[7] in a report of cases observed at the University of Virginia Hospital, stated that "the most outstanding symptom in each case was the severe and usually cramplike abdominal pain, while the most important physical abnormality was the extreme boardlike rigidity of the abdominal musculature." Noland[8] emphasized that patients suffering from arachnidism were often referred to the hospital with a diagnosis of some acute surgical condition of the abdomen. An excellent description of cases of arachnidism observed at the Vanderbilt University Hospital, together with a concise summary of the characteristics of the spider, has been reported by Kirby-Smith.[6] Relatively little attention, however, has been given to this subject in the surgical literature.

The Spider

The black widow spider (Latrodectus mactans) is a common spider which exists throughout the United States and Canada. The spider may be found in woods and fields. However, it also is frequently found about areas of habitation such as basements and garages. In rural areas the outdoor privy is a favorite site of abode for the spider and many individuals are bitten in outhouses.

The Latrodectus mactans female, which is the poisonous member of the species, is easily identified by its coal-black color and the red hourglass marking on the ventral surface. The body is usually about a centimeter long. Excellent descriptions of the life cycle and characteristics of the spider have been written by D'Amour[4] and Blair.[2] D'Amour reports that weight for weight the venom of the black widow spider is fifteen times as toxic as rattlesnake venom.

The toxic principle of the venom has been described as being a protein, probably an albumen. Hall[5] believes that this protein is a nonhemolytic neurotoxin which exerts its effect on nerves and nerve endings.

Symptomatology

Because the bite itself usually produces no more discomfort than that of a pinprick, patients frequently do not associate the spider bite with the general symptoms which follow soon after. A small red area is often seen at the site of the bite, but in many cases no local lesion is visible. In a few instances cellulitis and even necrosis has occurred at the local lesion. Most frequently in from one-half to two hours the patient is troubled by severe cramping pains in the muscle groups nearest the location of the bite. When the individual is bitten on the leg or genitalia, the cramps are first felt in the thighs and hips. Within a short time there is also felt excruciating cramping pain in the abdomen. Patients suffering with arachnidism complain of pain which in its severity may be comparable to that produced by perforated peptic ulcer, renal colic, or coronary occlusion. A careful history is often difficult to obtain because of the intense abdominal pain. The patient generally is also suffering, however, from pain in other muscle groups, such as thighs, back, and lower chest as well as in the abdomen. Examination of the abdomen shows extreme muscular rigidity to be present. Brooks[3] first pointed out that in such cases, even in the presence of marked abdominal rigidity, the abdomen usually moves with respiration. There ap-

*Read before the Ninety-Seventh Annual Meeting of the Middle Tennessee Medical Association, Dickson, Tennessee, May 20, 1943.

†This report did not require in its preparation reference to official records or to experience gained in the discharge of official duties in the Army and thus does not require submission to the Surgeon General prior to its publication. (See Par. 2C AR 40-1005). Major Harwell Wilson.

pears to be less tenderness than is generally found in peritonitis producing such abdominal rigidity. At the onset of pain the patient usually has no fever. Within a few hours a temperature of 100 degrees is often present and in some instances it may reach 101 degrees or 102 degrees. Nausea and vomiting occur in some cases. Leukocytosis is usually present.

Therapy

Most patients recover completely from black widow spider bite in from one to three days regardless of the type of treatment used. The great variety of remedies recommended speaks for their inefficiency in producing complete relief. Morphine gives only partial relief of the abdominal pain in most cases. Intramuscular magnesium sulphate, intravenous calcium, gluconate, and atropine sulphate have all been used without affording complete relief for the patient. Frequent hot baths have been found to be a real help in making these patients more comfortable.

Specific Latrodectus mactans antiserum when used within a short time after the bite has been received now seems to be the most rational form of therapy. Noon and Minear[9] and Kirby-Smith[11] have reported spectacular improvement in patients when the specific serum was given shortly after the bite. In four cases in children reported by the author[10] subsidence of the symptoms was readily obtained with specific antiserum, while in one adult case there was little evidence of improvement. Hall[5] has demonstrated experimentally the efficacy of specific antiserum in protecting the life of laboratory animals.

A few deaths have been reported in the literature though fatalities are relatively unusual. Noon and Minear[9], Kirby-Smith,[6] and Beasley[1] have each reported a fatal case.

Comment

In a previous publication the author[10] reported in detail fifty-six cases of arachnidism which were admitted to the John Gaston Hospital in Memphis, Tennessee, between 1933 and 1942, inclusive. The clinical picture presented by this series of patients agreed with that outlined above. Twenty-five of the patients were bitten on the buttock or genitalia. Severe abdominal pain was the most important symptom, and in most cases physical examination of the abdomen was said to reveal a four plus or boardlike rigidity. A few patients had no fever. Thirty-one of the fifty-six cases studied had a maximum temperature of ninety-nine degrees to 100 degrees, while nine had fever of 101 degrees or above. Five patients had nausea and vomiting. Leukocytosis was usually present.

A number of therapeutic agents were used. These included morphine, atropine, magnesium sulphate, calcium gluconate, hot baths, and specific antiserum. Morphine, frequent hot baths, and specific antiserum given relatively soon after the bite seemed to be the best methods of treatment. Two patients in this group were subjected to laparotomy, one case having a preoperative diagnosis of perforated ulcer and the other a preoperative diagnosis of perforated appendix. There were no deaths in the series reported.

Summary and Conclusions

Because of the severity and predominance of abdominal symptoms and signs in patients with arachnidism, surgeons should have a clear conception of the condition if needless operations are to be avoided. A careful history is exceedingly important, as patients frequently fail to recognize the causal relationship between the spider bite and the severe abdominal pain. The absence of abdominal tenderness and the presence of movement of the abdomen with respiration are important differential features in recognizing the syndrome. Specific antiserum given relatively soon after the bite appears to be the most rational form of therapy.

Bibliography

1. Beasley, B. T.: "Arachnidism." Southern Surgery, 11: 737-741, 1942.

2. Blair, A. W.: "Life History of Latrodectus Mactans." Archives of Internal Medicine, 54: 844-850, 1934.

3. Brooks, Barney: Discussion before Southern Surgical Association of Paper by Noland. American Journal of Surgery, 20: 762, 1933.

4. D'Amour, F. E.; Becker, F. E.; and Van Riper, W.: "The Black Widow Spider." Quarterly Review of Biology, 11: 123-160, 1936.

5. Hall, W. W.: "Spider Poisoning—A Study of the Toxin of the Black Widow Spider." United States Naval M Bulletin, 30: 471-478, 1932.

6. Kirby-Smith, H. T.: "Black Widow Spider Bite." Annals of Surgery, 115: 249-257, 1942.

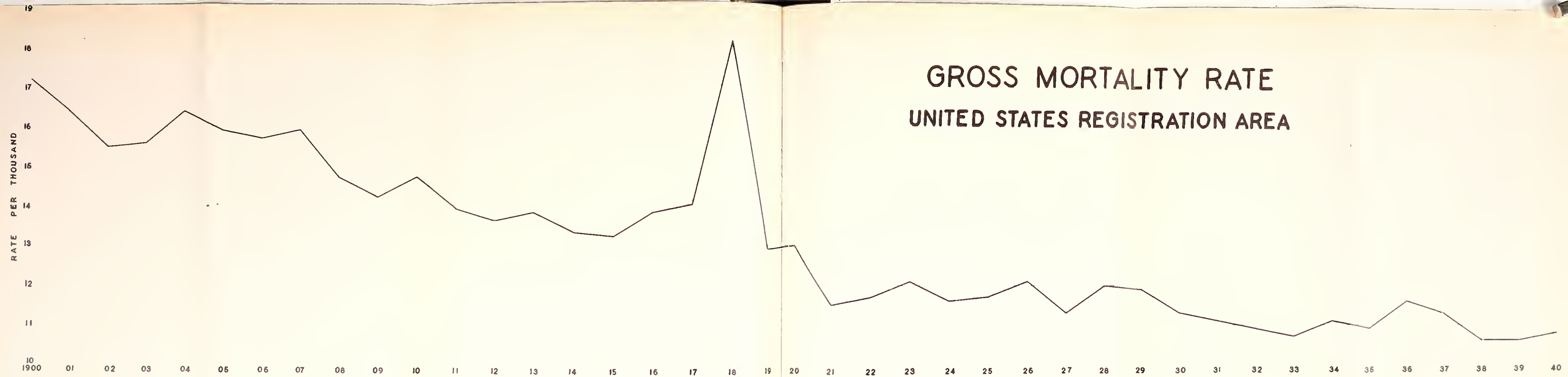
7. Morton, C. B.: "Acute Abdominal Symptoms in Arachnidism." Archives of Surgery, 26: 64-71, 1933.

8. Noland, L.: "Arachnidism." American Journal of Surgery, 20: 758-762, 1933.

9. Noon, Z. B., and Minear, W. L.: "Spider Bite." Southwestern Medicine, 25: 165-175, 1941.

10. Wilson, Harwell: Surgery, Vol. 13, pages 924-930, June, 1943.

11. Kirby-Smith, H. T.: Personal communication.



1. The above graphic tracing shows the death rate of the registration area of the United States by year for a period of forty-one years, 1900 to 1940, inclusive.

2. It will be noted that the death rate declined with few interruptions from 1900 to 1933, a thirty-four-year period.

3. It will be noted also that no appreciable or consistent reduction in death rate occurred during the eight-year period, 1933 to 1940, inclusive. This is particularly significant for the reason that large sums of federal money were appropriated by the Congress and spent by government agencies to carry on health activities in this same period of years. Benefits from these large expenditures obviously are not reflected in these mortality rates.

4. Mortality figures (death rates) are a more reliable index as to the general health status of the people than are the results of so-called health surveys, carried on, too often, by persons or agencies seeking data to support their political ideas and ambitions. Note, for example, the sharp upturn in the death rate (18.1) in the year 1918. This was the year a terrible influenza epidemic swept over the country.

Appendix

The following table shows the mortality rates for the registration area of the United States from the year 1900 to the year 1940, inclusive, as published in Vital Statistics of the United States, 1940, Part I, United States Department of Commerce, Bureau of the Census (for sale by Superintendent of Documents, Washington, D. C. Price, $2.00).

Year	*Rate Per Thousand Population*
1900	17.2
1901	16.4
1902	15.5
1903	15.6
1904	16.4
1905	15.9
1906	15.7
1907	15.9
1908	14.7
1909	14.2
1910	14.7
1911	13.9
1912	13.6
1913	13.8
1914	13.3
1915	13.2
1916	13.8
1917	14.0
1918	18.1
1919	12.9
1920	13.0
1921	11.5
1922	11.7
1923	12.1
1924	11.6
1925	11.7
1926	12.1
1927	11.3
1928	12.0
1929	11.9
1930	11.3
1931	11.1
1932	10.9
1933	10.7
1934	11.1
1935	10.9
1936	11.6
1937	11.3
1938	10.6
1939	10.6
1940	10.8

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

AUGUST, 1943

EDITORIAL

"We must beware of trying to build a society in which nobody counts for anything except a politician or an official, a society where enterprise gains no reward, and thrift no privileges."

WINSTON CHURCHILL.

POLITICAL MEDICINE HAS BEEN PROPOSED

A bill commonly known as the Wagner-Murray-Dingell Social Security Plan (S. 1161; H. R. 2861), introduced by Senator Wagner of New York, June 3, 1943, contains provisions for almost complete medical services to a large portion of the population of the United States by the federal government.

This editorial is addressed to lay people as distinguished from doctors. This is done for the simple reason that lay people will furnish the answer to the question as to whether or not this bill becomes a law. Doctors, of course, are deeply concerned over this proposal and can answer the question as to whether or not such a step is desirable from the point of view of the medical profession and from the point of view of persons who receive medical care, but doctors cannot answer the question as to whether or not this bill becomes a law. The latter question will be determined by all the influences which are brought to bear upon the senators and congressmen who have been elected to represent all of us in Washington.

Certainly lay people have as much reason for concern over the possible passage of this bill as doctors because they will benefit or suffer, as the case may be, as much if not more than doctors by its adoption.

The whole bill occupies ninety pages in the *Congressional Record*. Obviously, it cannot be reproduced in full. A few excerpts from it will serve the purpose of indicating the mechanism by which communistic medicine is to be established if the bill is passed.

1. It is provided that the sum of approximately $12,000,000,000 be raised by the federal government through the taxation of employees and employers. Employees who earn $3,000 a year or less will pay six per cent of their wages in taxes. A like amount will be paid by their employers. (Sections 960-961.)

2. The funds thus raised are to be placed in a "Federal Social Insurance Trust Fund." (Section 969.)

3. It is further provided that a certain portion of these funds (approximately $3,000,000,000) are to be allocated to an account known as "The Medical Care and Hospitalization Account." (Section 913.)

4. It is further provided that "The Surgeon General of the United States Public Health Service is hereby authorized and directed to take all necessary and practical steps to arrange for the availability of the benefits provided under this title." (Section 903.)

5. It is also provided that: "The Surgeon General is hereby authorized to negotiate and periodically to renegotiate agreements or cooperative working arrangements with appropriate agencies of the United States, or of any state or political subdivisions thereof, and with other appropriate public agencies, and with private persons or groups of persons, to utilize their services

and facilities and to pay fair, reasonable, and equitable compensation for such services or facilities." (Section 903.)

Under these general terms the Surgeon General of the United States Public Health Service is given this enormous grant of power. Specifically the Surgeon General is given these powers:

1. To hire doctors and establish rates of pay;
2. To establish fee schedules for services;
3. To establish qualifications for specialists;
4. To determine the number of individuals for whom any physician may provide service;
5. To determine arbitrarily what hospitals or clinics may provide service for patients.

The above provisions should suffice to convince the most skeptical person of the purpose back of this bill.

Space will not permit more than a brief discussion of three questions related to this bill.

The first question is: WHAT WOULD BE THE EFFECTS OF THE BILL IF IT SHOULD BECOME A LAW?

The answer is this: It would completely destroy the system of medical practice now in operation in this country and substitute for it what is known as state medicine or a communistic or a totalitarian system of practice.

The next question: HAS THE PRESENT SYSTEM VIRTUES AND ADVANTAGES WORTH PRESERVING FROM THE POINT OF VIEW OF LAY PEOPLE?

The answer is an emphatic yes.

There are several reasons for this affirmative answer. Among them are:

(a) The system is in complete harmony with the ideas of democracy as expressed in the Declaration of Independence of the United States. It has been developed within our democracy and in harmony with such an idea by natural and logical evolutionary steps.

A particular point of advantage to the patient is what is known as the "free choice of physician," which is to say that the patient is free to employ the physician of his choice. He is free to accept or reject the advice given. He is free to change his physician or call a consultant as he may wish. In brief, the patient is in command of the situation. The doctor is his adviser and servant. The same general statement holds for hospitals. We doctors hold to the view that this has value to the patient because a patient is more cooperative and more satisfied with the physician of his choice, and the faith thus expressed by him in his doctor inspires his doctor to his greatest interest and effort. The patient, not the doctor, is the direct beneficiary of this principle.

This freedom may be abused at times by patients, but this abuse, in the opinion of us doctors, is not a sufficient reason for the destruction of these freedoms entirely. We doctors have fought to preserve these advantages to patients and in doing so have often been misunderstood and accused of greed and selfishness.

The third question: HOW IS THE PRESENT SYSTEM FINANCED? It is financed very largely on what is known as a fee basis.

One cardinal principle in the code of ethics of the medical profession is to the effect that patients shall pay for medical services on the basis of their ability to pay, and notwithstanding occasional abuses it can be said that this principle is effective throughout the nation. As a result of it no fixed fee schedules exist in the practice of medicine except in cases where third parties are concerned.

All over the United States there are hospitals which have been established and are supported by churches, fraternal organizations, and welfare corporations of various sorts. These institutions, in most instances, have free beds, part-pay beds, and beds for which a full charge is made. The occupant of each class of bed gets essentially the same hospital services. Doctors render services to the indigent without pay and to the next higher group for moderate fees and the well-to-do patient will pay a full normal fee. The losses on the charity beds are made up from donations and from profits on the more expensive beds.

Almost every city in the United States of any size maintains a charity hospital in which indigent citizens get free hospital

care. Free medical care is donated to these patients by the doctors of the same community.

A point of tremendous importance and advantage is this: *All these institutions, both public and private, are under the management and supervision of individuals and agencies in the community in which they are situated.* They are, therefore, immediately responsive to local needs and desires. These same general principles apply to the medical care administered by doctors in their office and in the home of their patients.

WHAT IS THE COST OF THE SYSTEM?

The over-all cost of this system is not accurately known. The Committee on the Cost of Medical Care compiled figures and made estimates that the over-all cost of medical care in the United States was somewhere in the neighborhood of $3,000,000,000.

An important conclusion by the Committee was that the over-all cost is not excessive for the services rendered.

The next question of concern to a layman is this: HAS THE SYSTEM WORKED EFFECTIVELY?

The answer to this question is yes.

It can be asserted without fear of contradiction that the people of the United States receive the best medical care received by any people on earth today. As proof of this statement the mortality figures for the registration area of the United States for a forty-one-year period (1900 to 1940, inclusive) are presented in graphic form and in a table which appear elsewhere in this issue. (See center spread.)

These known facts should be a sufficient answer to the question as to whether or not our system of medical care has functioned effectively over a long period of years.

The next question which should concern lay people is this: IS IT POSSIBLE OR LIKELY THAT THE ADOPTION OF THIS BILL WOULD ENDANGER OUR FORM OF GOVERNMENT?

The answer is again an emphatic yes.

It has been observed by good authorities that when the number of government employees reaches a certain proportion of the total population the government employees take over all the powers of government. The political influence of such employees under the domination of a single head becomes so great that the legislative branch does not dare violate their wishes or orders. Theirs becomes the power to tax and to govern by decree. The step from democratic to totalitarian government can be taken, for all practical purposes, without bringing about a change in our organic law.

It requires no exercise of the imagination to recognize that the number of federal employees which would be required to administer the provisions of this bill, when added to the number of federal employees already in existence, would bring the total number up to, if not above, the number required to take over all the functions of the federal government.

For too long a time too many lay people have thought this question of state medicine was no concern of theirs. They have looked upon the discussion of it as a controversy between doctors and a group of social uplifters. It is, therefore, urgently requested that our lay friends consider seriously the following questions:

1. ARE YOU IN FAVOR OF DESTROYING A SYSTEM OF MEDICAL PRACTICE WHICH HAS DEMONSTRATED ITS EFFECTIVENESS OVER MANY YEARS AND WHICH CONTAINS THE ELEMENTS OF FREEDOM ABOVE SET OUT, AND ACCEPT IN LIEU OF IT A SYSTEM OF PRACTICE FINANCED BY THE GOVERNMENT *THROUGH TAXES PAID BY YOU*, AND ADMINISTERED BY A SINGLE FEDERAL OFFICER WITH AUTOCRATIC POWER OVER BOTH YOU AND YOUR DOCTOR?

2. ARE YOU WILLING TO EXCHANGE YOUR FREEDOM, AS IT MAY RELATE TO YOUR MEDICAL CARE, AND ACCEPT IN LIEU OF THAT FREEDOM THE DICTATES OF A GOVERNMENT AGENT APPOINTED BY A POLITICAL AUTHORITY?

3. ARE YOU WILLING TO RUN THE RISK OF DESTROYING THE DEMOCRACY WHICH YOU KNOW IN ORDER FOR A GOVERNMENT AGENT TO CARRY ON AN EXPENSIVE EXPERI-

MENT IN THE FIELD OF MEDICAL CARE WITH YOUR MONEY AND YOUR FREEDOM?

You, our lay friends, hold the answers to these questions. You are cautioned not to be misled by your emotions and by the idea that in supporting this bill you would be supporting a very simple welfare movement.

Your attention is called to the fact that Herr Hitler rode into power mainly on the wings of a welfare movement.

DEATHS

Dr. Benton Burkhart Mitchell

Dr. Benton Burkhart Mitchell, Fountain City, Tennessee; University of Tennessee College of Medicine, Memphis, 1934; began active duty as captain in the Medical Corps, Army of the United States, in September, 1942; aged forty-four; died, June 10, 1943, in the Station Hospital, Fort Hayes, Ohio.

Dr. C. C. Vinsant

Dr. C. C. Vinsant, Maryville; University of Tennessee College of Medicine, 1907; aged sixty-six; died, April 22, 1943.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

Andrew B. Thach, Jr., lieutenant (j. g.), Medical Corps, U. S. N. R., Jacksonville, Florida, to "C" Medical Company, Fourth Medical Battalion, Camp LeJeune, New River, North Carolina.

Maurice Seligman, captain, Medical Corps, Oklahoma City, Oklahoma, to Sixtieth Air Depot, Gr. Apts., Albuquerque, New Mexico.

Lee Farrar Cayce, lieutenant, Medical Corps, Nashville General Hospital, Nashville, to Brooks General Hospital, Fort Sam Houston, San Antonio, Texas.

James C. Chambliss, lieutenant, Medical Corps, Nashville, to La Garde General Hospital, New Orleans, Louisiana.

Change of Address

Dr. W. J. Breeding, 926 East McDonal Street, Lakeland, Florida, to 802 Lexington Street.

Dr. Earl Donathan, formerly of Memphis, is now located in the Medical Arts Building, Knoxville, Tennessee.

Dr. M. R. Beyer, Waverly, to Dresden, Tennessee.

Dr. S. J. Axelrod has changed his address from the Venereal Disease Clinic, Erlanger Hospital, Chattanooga, to the Chattanooga-Hamilton County Health Department, Municipal Building, Chattanooga 2, Tennessee.

NEWS NOTES AND COMMENTS

The United States Secret Service, Post-Office Inspectors, and Your Police Department Warn

If you receive United States government checks, or cash them for others, beware of thieves and forgers.

With millions of Army, Navy, and Social Security checks going into the mails, they suggest:

If you are receiving government checks—

1. Print your name clearly on your mail box and keep it locked.
2. Notify your post office promptly if you move.
3. Do not endorse checks until you are ready to cash them.
4. Try to cash your checks in the same place each month.

If you cash checks for others—

1. Demand positive identification when cashing checks for strangers. Don't be fooled by forgers.
2. Before cashing any check, ask yourself this question: If this check is returned, can I locate the forger and recover my loss?
3. Know your endorsers. Play safe.

MEDICAL SOCIETIES

Hamilton County:

August 5—"Review of More Than Twenty Years of Eye Surgery," by Dr. Stewart Lawwill.

On September 2 Dr. A. M. Patterson will read a paper on "Cancer of Stomach."

ABSTRACTS OF CURRENT LITERATURE

ANESTHESIA

By Hugh Barr, M.D.
Medical Arts Building, Nashville

Caesarean Section Under Spinal Anesthesia. D. H. Batten, M.D. Anesthesia and Analgesia, May-June, 1943.

A careful review of over one hundred cases has demonstrated that spinal anesthesia in Caesarean section is a valuable method of producing pain relief. Morphine and scopolamine in appropriate doses were administered about ninety minutes prior to the beginning of surgery. Ephedrine sulphate is given five minutes before the spinal anesthesia is begun. With the exception of moderate headaches in two patients there were no postanesthetic complications.

Instead of the inhalation of oxygen in only those who showed oxygen want or undue hypotension oxygen is administered as soon as the spinal anesthesia is complete. This insures adequate oxygenation of the baby. The arterial blood of the newborn after delivery is approximately fifty per cent while that of the mother is about ninety per cent.

The advantages to the mother are a quiet operative field, a rapidly contracting uterus and minimal uterine bleeding, the retention of the pharyngeal reflex safeguarding against aspiration of vomitus and pink babies in spite of maternal sedation and cerebral damage through oxygen want is eliminated by oxygen inhalation.

INTERNAL MEDICINE

By R. B. Wood, M.D.
By D. R. Thomas, M.D.
Medical Arts Building, Knoxville

Rocky Mountain Spotted Fever. George E. Baker, M.D., Casper, Wyoming. Journal of American Medical Association, July 24, 1943.

This disease, once fairly well confined to the Rocky Mountain area, is now more often seen over a far wider area. Known to have existed in areas once forbidden to travelers in certain seasons by the medicine men of Indian tribes, it has now been reported in all sections of the country, being limited only by conditions which render life of the tick impossible under any circumstances. Avoidance of the disease can be had by:

1. Eradication of the tick.
2. Avoidance of localities where infected ticks may be present.
3. Tick vaccine—prepared by the Rocky Mountain Laboratories at Hamilton, Montana. Vaccination in the spring gives protection for that year especially against any mild strains of the disease, but is progressively less effective as virulence of the virus is increased. In addition to the usual treatment of any acute febrile disease, the author and others have been routinely using an intravenous injection of three-tenth gram neoarsphenamine dissolved in ten cubic centimeters of 1:1,000 aqueous solution of metaphen, given at three-to-four-day intervals for three or four injections. If given slowly with usual precautions, no reactions have been noted, but the author feels kidney damage should be given due consideration.

One gathers that, in addition to nine cases treated in 1934, the author has probably treated three to four cases each subsequent year, and no deaths are reported. "It is certain that those treated show less evidence of intoxication, minimal damage to the heart and kidneys, and a more discrete, brighter colored eruption."

Histamine in the Treatment of Menieres Syndrome. John J. Rainey, M.D., Troy, New York. Journal of the American Medical Association, July 24, 1943.

Traced from antiquity to modern times, no specific treatment has been yet reported. Remedies such as sedatives, ammonium chloride, salt-free diet, catheterization of Eustachian tube, etc., are only helpful.

To the author the most promising help promises to be from the intravenous injection of histamine phosphate. One cubic centimeter of 2.75 milligrams is diluted in 250 cubic centimeters of normal saline and given at the rate of forty to sixty drops per minute, perhaps seventy. This, in obstinate cases, should be repeated on the third day; occasionally should be followed by the intramuscular injection once weekly for several weeks.

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

Caesarean Section—Evaluation of Types of Section and Their Indications. Edward A. Schumann. American Journal of Surgery, 49: 50-59, January, 1943.

Following a brief review of recent surveys on the subject Caesarean section, the author expresses a strong belief that with the steady improvement of technic the Caesarean section should be utilized

whenever a difficult labor with its inherent dangers to mother and child is anticipated. Hysterotomy has become a safe procedure. However, a needed advance is the increase in ratio between planned, elective section and those performed as a last resort when all other means of delivery have failed. The danger of Caesarean section varies almost in direct ratio to the length of time intervening between the onset of labor and the performance of the operation. A true appreciation of this fact will still further reduce both morbidity and mortality. There are still too many sections done on infected, exhausted women, with small chance of survival of the infant and great danger to the mother. Until some form of extraperitoneal section is developed, embryotomy offers a better maternal prognosis. Reasons for the decrease in mortality rates of the operation are discussed. The one great indication for low section would seem to be in the patient with a failed test of labor, when the membranes have been ruptured for some time and when the lower uterine segment is well thinned out and distended by pressure of the presenting part. If the so-called classical operation is performed with a covering flap of uterine serosa, the danger of postoperative adhesion is unimportant. Alarming hemorrhage may occur following low section. Nor is the latter as simple an operation as the classical procedure. As the low operation is more and more often performed, the number of spontaneous scar ruptures will increase. Although low section offers greater protection against the spreading of an already existing infection, only one Caesarean patient in twenty presents such an infection, so that the alleged protection is uncalled for in the remaining ninety-five per cent. Test labor if often unnecessarily prolonged. Elective section before the point of potential infection and exhaustion of the patient would seem a wiser procedure.

The author describes a purely elective procedure done before the onset of labor or very early in the first stage, the indications being generally cephalopelvic disproportion, toxemia, placenta previa, or systemic disease of the mother in which hysterotomy is deemed the most conservative form of delivery. In sections of emergency either the low form or much preferably the Waters technic is advocated. The technic of the operation described requires meticulous observance of a number of details, insignificant in themselves but all contributing to a smooth convalescence. Certain abuses tend to discredit Caesarean section despite the improvements in technic and results. The author refers to the indiscriminate employment of hysterotomy to satisfy either the desire of the patient to avoid labor or to conserve the time of the obstetrician, and the fatigue engendered by attendance upon spontaneous delivery. Although elective Caesarean section is one of the safest operations, it is still far more dangerous to the mother than vaginal delivery and always carries with it certain subsequent risks.

Pregnancy in the Cardiac. Lester E. Frankenthal. Society of Clinicians of North America, 23: 35-43, February, 1943.

With modern methods of education of patients with severe cardiac disease in regard to birth control measures, the number of women with heart disease involving an unfavorable prognosis who become pregnant has decreased; and concomitantly the number of therapeutic abortions because of cardiac disease has also decreased. If a woman with severe cardiac disease, aware of the risk, desires to continue her pregnancy, she should be allowed to do so under careful supervision and treatment. If, however, a woman has become pregnant without being aware of the seriousness of her cardiac condition, abortion is indicated, but not until after treatment for the heart disease has resulted in "the optimum response," the best method in such patients is abdominal hysterotomy. If a complicating infection occurs in early pregnancy that jeopardizes the patient's life, therapeutic abortion is also indicated. In addition to the usual prenatal care, the condition of the heart must be carefully evaluated in a pregnant woman with heart disease. A diet should be prescribed which will prevent excessive gain in weight; the maximum gain in weight allowed during pregnancy should not exceed fifteen to twenty pounds. A cardiac patient who is pregnant should have a rest period every afternoon and eight to ten hours in bed each night. Exercise should be limited; she should have more frequent examinations than the normal pregnant woman. If signs of cardiac failure develop—dyspnea, anginal pain, or moist rales at the base of the lungs, or edema and other more severe symptoms — the patient should be put at absolute bed rest, preferably in a hospital, the head and chest should be elevated by a back rest or by pillows; sedatives should be given, including morphine in the severe cases; and digitalis therapy should be begun immediately; in severe cases intravenous administration of digitalis may be necessary. Diet and fluid intake must be carefully regulated; the fluid should not exceed a quart a day; peptonized milk was found to be helpful in these cases, supplying both food and fluid. During the first stage of labor in cardiac patients, morphine or other sedatives and analgesics should be used. The author does not consider it necessary to "eliminate" the second stage of labor by forceps delivery in every cardiac patient; if there is any cephalopelvic disproportion, forceps delivery is indicated if the head is below the level of the ischial spines; when the head is above this level, the patient "may be allowed to bear down a few times" under ether analgesia before forceps are used. In order to avoid the effects of sudden decrease in intra-abdominal pressure after delivery of the child, the author has found it advantageous to place sandbags on the abdomen of cardiac patients as the child is delivered; three or four bags are employed, and one removed every fifteen minutes. Ether or cyclo-

propane, both with "adequate" oxygen, has been found to be the best obstetric anesthetic for cardiac patients. Caesarean section is done only on definite obstetric indications in cardiac, as in other patients.

Hypertensive Toxemia of Pregnancy. William J. Dieckmann. Society of Clinicians of North America, 23: 11-20, February, 1943.

While the mortality of nonconvulsive toxemia of pregnancy in the United States averages 1.7 per cent, that from eclampsia averages thirteen per cent. If patients with hypertension become pregnant, the pregnancy usually results in increase in the blood pressure; some renal involvement is present as a rule and also becomes more severe during pregnancy. Renal function tests are of value in this type but not in the pre-eclamptic toxemia which may develop without any preceding hypertension. The indication for the termination of pregnancy depends upon the duration of the pregnancy, severity of the symptoms and signs, and the condition of the cervix. Criteria indicative of the severe toxemia are: A group—systolic blood pressure constantly 170 millimeters mercury or over, or progressive daily increase; protein of urine above five grams in twenty-four hours or the qualitative test three plus; gain in weight over 100 grams per day; sudden occurrence of marked edema. B group—cerebral, visual, or gastrointestinal symptoms; oliguria, anuria, or hematuria; jaundice; blood nonprotein nitrogen fifty milligrams or more per 100 cubic centimeters; pulse rate 120 or more; edema of lungs or cyanosis; increasing concentration of the blood. If the duration of pregnancy is twenty-six weeks or less, pregnancy should be terminated if more than one of these criteria is present or if there is no improvement after seven days of adequate treatment. If pregnancy is of twenty-six to thirty-one weeks duration, medical treatment should be employed until thirty-two weeks, unless some B signs develop, or A signs persist or increase. With pregnancy of thirty-two to forty weeks duration, medical treatment should be employed until the cervix is "ripe" unless B signs are present or develop. If A signs increase or B signs develop, induction of labor by rupture of the membranes and/or insertion of a bag should be employed, or if the cervix is uneffaced, Caesarean section. If induction of labor is not effective in twelve hours when the cervix is "ripe" pitocin (rather than pituitrin) may be given in doses of one-half to one minim (0.03 to 0.06 cubic centimeters) every thirty minutes. If eclampsia develops, one or preferably more than one of the following drugs should be used: Magnesium sulfate, fifty per cent solution, ten cubic centimeters intramuscularly and two cubic centimeters after every convulsion until convulsions are controlled or a maximum of twenty cubic centimeters is given in twenty-four hours; luminal sodium given subcutaneously in a dose of 0.3 grams (five grains), repeated, if indicated, in twelve hours; morphine sulfate, 0.016 grams (one-fourth grain) every hour until convulsions are controlled or respirations become twelve per minute; chloral hydrate, two grams (thirty grains) in 100 cubic centimeters of starch water given by rectum every six or twelve hours. Diuresis is inducted by injection of 500 to 1,000 cubic centimeters of twenty per cent glucose solution given within forty to sixty minutes two or three times daily; a thirty or fifty per cent solution may be used if necessary. After diuresis is established labor should be induced or a Caesarean section done (only in very severe cases or for disproportion) under local anesthesia. If the patient is in labor, delivery may be hastened by rupture of the membranes or the use of a bag.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Cornea and Sclera. Superficial Vascularization of Cornea: Results of Riboflavin Therapy. H. R. Sanstead. Archives of Ophthalmology, July, 1943.

Sanstead discusses the prevalence of superficial vascularization of the cornea in groups of school children, youths, and adults of various ages and the effect that riboflavin therapy had on the condition. The 366 persons examined were residents of Hagerstown, Maryland, or its immediate vicinity. Fifty-two of those examined were given riboflavin. From eighty to ninety-five per cent had some degree of corneal invasion by capillaries. Corneal invasion was relatively more frequent and more severe among the older persons. Of the parochial school children sixty-seven per cent and of the National Youth Administration youths seventeen per cent had only two quadrants affected, and for the older subjects the figure was thirty per cent. The corneal vascularization of fifteen older subjects who had received 615 to 1,630 milligrams of riboflavin during at least sixty days was not significantly different from that of fifteen control persons of similar age. Likewise, the therapeutic effect was similar in the eleven parochial school children given five milligrams of riboflavin twice daily for forty-nine days or ten milligrams daily and in the eleven controls. It appears doubtful that superficial corneal vascularization is a diagnostic sign of riboflavin deficiency.

Glaucoma: The Use of Doryl in the Treatment of Glaucoma. S. T. Clarke. Archives of Ophthalmology, July, 1943.

Clarke draws the following conclusions:

"1. Doryl (carbaminoylcholine chloride) is a parasympathomimetic agent capable of lowering the ocular tension in glaucoma.

"2. Doryl may be given in 0.75 per cent concentration, which is much less irritating than other

commonly used drops in the treatment of glaucoma.

"3. Doryl varies in effectiveness. Some patients maintain much lower tensions under doryl than under other drugs. Many patients are better controlled by doryl than by two per cent pilocarpine. In a few patients doryl is not so effective as two per cent pilocarpine. The action of doryl is usually about as strong as that of a mixture of two per cent pilocarpine and 0.5 per cent eserine (physostigmine).

"4. One of the most important considerations to be borne in mind when using doryl drops is that slight massage greatly increases the absorption and effectiveness of the drug.

"5. Doryl is valuable as a 'rest therapy.' Its use for a time seems to reduce a patient's tolerance to other myotic drugs so that they are more effective again after the period of doryl administration.

"6. Doryl is an effective substitute for other myotics which have caused a development of sensitivity in the patient accompanied by dematitis and conjunctivitis. The use of doryl in such cases cures these annoying symptoms.

"7. Doryl is not presented as a substitute for all other pharmacologic agents used in the treatment of glaucoma. It does possess properties (nonirritating, effective lowering of tension in many patients) which make it a valuable drug to augment the armamentarium of conservative treatment of glaucoma."

ROENTGENOLOGY

By J. Marsh Frere, M.D.
Newell and Newell Sanitarium, Chattanooga

The Therapeutic Value of Roentgen Treatment in Chronic Asthma. Wayne M. Hull, M.D., Ray M. Balyeat, M.D., and L. K. Chont, M.D., Oklahoma City, Oklahoma. The American Journal of Roentgenology and Radium Therapy. Vol. 49, No. 2, Page 227, February, 1943.

The authors report on their observation on the treatment of 100 consecutive cases over a six-months' period.

The protocol reveals some interesting facts regarding infection. They found that in fifty-eight per cent of this series the white blood count ranges between 7,000 and 11,000 white blood cells per cubic millimeter. In thirty-two per cent the white blood count was above 11,000, but in only ten per cent was it below 7,000. They regarded the white blood count as somewhat significant in evaluating the presence of infection in asthmatic individuals and generally more significant than the findings of organisms in the expectorated sputum, since large numbers of bacteria may be found in the bronchial secretions without necessarily causing trouble, while in other individuals even small numbers of organisms may produce very marked effects. Comparison of the white blood count before and after treatment is even more confirming when in practically every instance the blood count can be seen to drop as infection is eliminated.

In their series of patients, twenty-four per cent brought up no mucus at all, eleven per cent a slight amount of mucus, and twenty-two per cent only moderate amounts. The remainder, or forty-three per cent, expectorated large amounts, and in fifty-one per cent of all patients the secretions were found infected.

Their treatment of asthmatic patients by radiation therapy has varied somewhat in technique from that used by others. In this country Maytum and Leddy, and those employing this type of treatment, have advocated the so-called direct technique in which the purpose is that of concentrating the greatest amount of radiation in the hilar regions and the mediastinum. They have felt that irradiation should be more effective when distributed over a large area of the lung where the bronchial tubes are most numerous and therefore have employed a so-called "cross-fire" technique in which six distinct field areas of the chest are irradiated. The first fields are exposed with the patient lying on his back with the tube set at about a forty-five or sixty degree angle, first on the right side and then on the left side. The average individual receives about 100 roentgens of filtered radiation to each field, and since two fields are irradiated at the same sitting the total dose is about 200 r daily. The next treatment is given to the corresponding fields of the posterior chest with the tube directed at an oblique angle from the posterior lateral aspect. The lateral fields are given by direct irradiation to the sides of the chest. Two exposures are generally given to each field in the course of the treatment, depending on the severity of the case and the amount of involvement in the bronchial tubes. Thus in the average individual a total dosage of between 800 and 1,600 r is administered through six portals. In severe cases where infection is great, or where the amount of purulent mucus is considerable, the total dosage may be increased above that for the average individual. Likewise, for milder cases and in children, the dosage is considerably below the average.

As to results, they have classified them as: Excellent, thirty-nine per cent; good, forty per cent; fair, thirteen per cent; poor, six per cent; no results, two per cent.

Their conclusions are as follows: Although this group represents a series of 100 consecutive patients, the first we have treated by radiation therapy, we know our technique has greatly improved and that the next 1,529 patients following this group which have been treated have shown better results. We are able at this time to offer the following conclusions on this method of treatment of severe asthma complicated by infection:

1. We are able to control asthma in many individuals who did not respond satisfactorily to methods previously used.

2. Radiation therapy in asthma is of definite

value in those patients who show infection either in the bronchial tubes, the paranasal accessory sinuses, or both.

3. Infection has proved to be of greater importance in the asthmatic problem than previously regarded because of the remarkable response of these individuals to radiation therapy.

4. Radiation therapy in asthmatic sufferers free of infection seems to have little or no effect.

5. The choice of technique is in favor of the "cross-fire" method in which the dosage is concentrated over the greatest areas of the lungs where most of the bronchial tubes are distributed.

6. The method is not without danger but can be regarded as safe when accurate, detailed records are kept on each individual, and where the amount of radiation is maintained within a safe range of dosage.

7. We believe that irradiation of larger areas of the chest has given better results.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

The Upper Urinary Tract in Cases of Neurogenic Bladder: Preliminary Communication. Emerson Smith and Alex Strasberg.

There is very little reference to the upper urinary tract pathology in the literature on cord bladder. The present knowledge about this subject is based largely on speculation and conjecture. It was with a view of clarifying some of the concepts on this topic that these investigations were undertaken on clinical material, made available hy the Royal Victoria Hospital, the Montreal Neurological Institute, and a large syphilis clinic.

Most of the urologists appear to be of the opinion that hydronephrosis and hydro-ureter are features of the neurogenic bladder, caused by back pressure on the upper urinary tract from an overdistended atonic bladder.

Plaggemeyer, in 1921, reported a series of twenty cases of cord bladder in which the cord had been transected at various levels. He concluded that there was no reflux or dilatation of the ureter or pelvis. Cumming made an investigation of the upper urinary tract lesions in patients with cord bladder. He concluded that hydronephrosis and ureteral atony are not a common sequence to paralysis of the bladder, except in the presence of gross infection.

Beach, from his experiments on dogs, is of the opinion that any neuromuscular disturbance of the ureter results in dilatation of the ureter and pelvis.

Many writers are of the opinion that paralysis of the sympathetic splanchnic or pelvic ganglion, etc., can produce atonic changes in the pelvic or ureter.

The ureter has both intrinsic and extrinsic innervation. There are ganglion cells, medullated and nonmedullated fibres within the wall. This neuromuscular system is probably the motive power of peristalsis. The proximal and distal sections of the ureter are abundantly supplied with nerve fibres while the middle portion is not as well supplied.

A series of fifty cases of cord bladder were studied for this report. A cystometrographic study was made on each patient; three cases showed hypertonic and the remainder were either hypotonic or atonic. Kidney function test with phenosulphonphthalein showed no impairment of renal function. Intravenous pyelograms were done on all cases. There was no evidence of hydronephrosis or hydro-ureter in any case. Cystograms with the head lowered failed to reveal any regurgitation.

BOOK REVIEW

"The Answer Is Your Nerves." Arnold S. Jackson, M.D., F.A.C.S., Madison, Wisconsin. Published by Jackson Publications, Madison, Wisconsin. 200 pages. Price, $2.00.

This small volume, "Your Nerves," fills an urgent need in medicine. The surgeon, no less than the internist, is daily confronted with patients who complain of a whole category of symptoms for which no organic cause can be found. In fact, as Dr. Jackson has pointed out, many individuals come to the surgeon with the full expectation of having an operation, and are surprised to be told that their complaints are of purely nervous origin. One heartily agrees with him, therefore, that all doctors should be prepared to advise and treat the nervous patient, and it is apropos that he, a surgeon, should have written this excellent and timely little book on the subject.

Drawing from a vast store of experience, Dr. Jackson explains the causes of functional nervousness, describes its numerous symptoms in various types of patients, and offers a simple, logical, and practicable method of restoring its victims to a normal state. His plan of balanced living, not forgetting the part of religion and a healthy attitude of mind in a wholesome, happy existence, exhibits a profound understanding of human nature as well as a complete grasp of the scientific aspects of the problem.

Unquestionably, this book is intended primarily for the layman. At the same time, Dr. Jackson has done his confreres in the profession a real service: the layman who reads it cannot but feel that the honest surgeon endeavors by every means at his disposal to distinguish between a surgical and a nonsurgical complaint, and is only too pleased to withhold operation when consistent with the patient's best interests. It should inspire any patient, and particularly those to whom it is addressed, with full trust in his physician or surgeon, which in itself is a long step toward healing. For

this quality, and for its common sense advice, presented in clear, understandable terms, "Your Nerves" should be made available to that multitude of nervous patients everywhere who have no real ills, but who need advice and help. Not only should it be read by every doctor; it should be given a conspicuous place in every doctor's reception room.

R. L. SANDERS, M.D.

Reports of the Council on Pharmacy and Chemistry. Issued under the direction and supervision of the Council on Pharmacy and Chemistry of the American Medical Association. Cloth. Price, $1.00. Pp. 207. Chicago: American Medical Association, 1943.

Through the years the size of this volume has grown with the increased work of the Council on Pharmacy and Chemistry until the present edition has the same number of pages as the book published in 1908, which covered the Council's first four years of activity. Some of the functions of this group are well known, but a more thorough understanding of the Council's scope may be gained from the annual reprint. This volume epitomizes that phase of the Council's work which may be said to be collateral to the "acceptance" of drugs—the informative consideration of current medical problems in the interest of rational therapeutics. It contains reports of studies by private investigators which were originally published in THE JOURNAL under the sponsorship of the Council such as preliminary discussions of new developments in therapeutics and timely articles on the status of recognized agents as well as reports of omission or rejection of products from New and Nonofficial Remedies. It also offers a record of current decisions on matters of Council policy.

Several of the reports are of particular interest for various branches of medical science: the use of bulk ether in anesthesia, the absorption of surgical gut (catgut), the higher types of antipneumococcus rabbit serum, the surgical and medical treatment of animals with experimental hypertension, and the status of racemic epinephrine solutions for oral administration. The reports in this small compact volume represent expert medical consensus and are proffered to aid in the consideration of the value of therapeutic agents.

Send It to

LILY WHITE LAUNDRY

6-3118

Order Reprints From

McQUIDDY PRINTING COMPANY

Nashville, Tennessee

ANTHONY'S MILK

ACCEPTED by the AMERICAN MEDICAL ASSN. Committee on Foods

• Grade "A" Pasteurized • Homogenized • Soft Curd • Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.
President-Elect—Dr. Kyle C. Copenhaver, Medical Arts Building, Knoxville.
Vice-President for West Tennessee—Dr. J. W. Oursler, Humboldt.
Vice-President for Middle Tennessee—Dr. Burnett W. Wright, Nashville.
Vice-President for East Tennessee—Dr. J. C. Brooks, Chattanooga.
Secretary-Editor—Dr. H. H. Shoulders.
Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1946).
Dr. E. R. Zemp, Walnut Street, Knoxville.
Dr. B. L. Jacobs, Provident Building, Chattanooga (1946).
Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).
Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Jere L. Crook, Jackson.
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.
Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1946).
Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennesse (1946).

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H. P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	J. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S. Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	H. H. Edmondson, Clarksville	Jack Ross, Clarksville	B. H. Webster, Clarksville
Obion			D. S. Latimer, Union City
Overton	W. M. Breeding, Livingston		A. B. Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood		W. W. Hill, Harriman
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			W. M. Dedman, Gallatin
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. W. L. Williamson, Memphis
Dr. L. W. Edwards, Nashville
Dr. E. G. Wood, Knoxville
Dr. A. M. Patterson, Chattanooga
Dr. J. O. Manier, Nashville

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville (1945)
Dr. A. F. Cooper, Memphis (1944)
Dr. Cecil E. Newell, Chattanooga (1946)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. E. A. Gilbert, Chattanooga (1944)
Dr. R. R. Crowe, Nashville (1946)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Lee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1946)
Dr. John B. Steele, Chattanooga (1946)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1946)
Dr. T. R. Ray, Shelbyville (1946)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. O. N. Bryan, *ex officio*, Nashville

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1948)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1946)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1946)
Dr. John M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. C. H. Sanford, Memphis (1944)
Dr. D. W. Smith, Nashville (1946)

COMMITTEE ON MEMOIRS

Dr. James O. Walker, Chairman, Franklin (1945)
Dr. D. W. Hailey, Nashville (1944)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1946)
Dr. J. L. Hankins, Johnson City (1946)

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. John S. Cayce, Nashville (1944)
Dr. J. B. Fitts, Chattanooga (1944)
Dr. M. L. Hefley, Knoxville (1946)
Dr. C. W. Friberg, Johnson City (1946)

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. W. R. Cross, Knoxville (1946)

COMMITTEE ON CANCER

Dr. C. H. Heacock, Chairman, Memphis (1944)
Dr. Ralph H. Monger, Knoxville (1946)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. Stanton S. Marchbanks, Chattanooga (1944)
Dr. Howard King, Nashville (1946)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. C. R. Thomas, Chattanooga (1944)
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1946)
Dr. George Inge, Knoxville (1946)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. Carrington Harrison, Nashville (1946)

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. E. T. Newell, Chattanooga (1945)
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Robert F. Patterson, Knoxville (1946)

COMMITTEE ON PREPAYMENT PLANS FOR MEDICAL AND HOSPITAL SERVICES

Dr. J. O. Manier, Chairman, Nashville
Dr. R. R. Brown, Nashville
Dr. J. C. Brooks, Chattanooga
Dr. M. S. Roberts, Knoxville
Dr. A. R. Porter, Jr., Memphis
Dr. W. D. Stinson, Memphis

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatic Society—
President—Dr. Frazier Binns, Nashville*
Vice-President—Dr. O. L. Von Canon, Chattanooga*
Secretary—Dr. Gilbert Eblen, Knoxville*

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland*
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis*
Vice-President—Dr. Franklin B. Bogart, Chattanooga*
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

*In service.

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 9

SEPTEMBER, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

PROCEEDINGS OF THE HOUSE OF DELEGATES, ONE HUNDRED TENTH ANNUAL SESSION, TENNESSEE STATE MEDICAL ASSOCIATION, NOEL HOTEL, NASHVILLE, TENNESSEE, APRIL 11, 1943 329

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION, JUNE 7-10, 1943 354

INDEX TO PROCEEDINGS OF THE HOUSE OE DELEGATES 355

EDITORIAL 356

DEATHS 361

NEWS NOTES AND COMMENTS 361

MEDICAL SOCIETIES 364

ABSTRACTS OF CURRENT LITERATURE 364

LIST OF OEEICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION 371

STANDING COMMITTEES 372

INDEX TO ADVERTISERS XXII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

BACKGROUND

Three Decades of Clinical Experience

THE use of cow's milk, water, and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

DEXTRI-MALTOSE No. 1 (with 2% sodium chloride), for normal babies.
DEXTRI-MALTOSE No. 2 (plain, salt free), permits salt modifications by the physician.
DEXTRI-MALTOSE No. 3 (with 3% potassium bicarbonate), for constipated babies.

These products are hypo-allergenic

DEXTRI-MALTOSE

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons. Mead Johnson & Company, Evansville, Ind., U. S. A.



Wyeth's Phosphaljel is supplied in 12-fluidounce bottles*

PHOSPHALJEL WYETH'S ALUMINUM PHOSPHATE GEL

Effective in the treatment of gastrojejunal ulcer and other cases of peptic ulcer associated with a relative or an absolute deficiency of pancreatic juice, diarrhea, or a low phosphorus diet.

ACCEPTED AMERICAN MEDICAL ASSOCIATION

*Reg. U. S. Pat. Off.

Phosphaljel contains 4% aluminum phosphate.

JOHN WYETH & BROTHER • INCORPORATED • PHILADELPHIA

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE

ISSUED MONTHLY, Under Direction of the Trustees

Copyright, 1943, by the Tennessee State Medical Association

H. H. SHOULDERS, M.D., Secretary and Editor — W. M HARDY, M.D., Assistant Secretary-Editor

OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI — SEPTEMBER, 1943 — No. 9

PROCEEDINGS OF THE HOUSE OF DELEGATES, ONE HUNDRED TENTH ANNUAL SESSION, TENNESSEE STATE MEDICAL ASSOCIATION NOEL HOTEL, NASHVILLE, TENNESSEE APRIL 11, 1943

SUNDAY MORNING SESSION

A meeting of the House of Delegates of the Tennessee State Medical Association was held Sunday, April 11, 1943, in the ballroom of the Noel Hotel, Nashville. The first session convened at 10:20 A.M., the Speaker of the House, Dr. E. R. Zemp, Knoxville, presiding.

THE SPEAKER: Gentlemen, please come to order. We will have the roll call.

The Secretary, Dr. H. H. Shoulders, Nashville, called the roll.

LIST OF DELEGATES

County	*Delegate*
Anderson-Campbell	J. M. Cox, Lake City
Bedford	T. R. Ray
Bedford	J. N. Burch, Shelbyville
Blount	C. B. Lequire, Maryville
Bradley	None
Carroll	R. T. Keeton, Bruceton
Cocke	None
Cumberland	V. L. Lewis, Crossville
Davidson	J. J. Ashby, Nashville
Davidson	W. G. Kennon, Nashville
Davidson	Burnett Wright, Nashville
Davidson	Douglas C. Seward, Nashville
Davidson	David W. Hailey, Nashville
Davidson	J. C. Pennington, Nashville
Dickson	W. J. Sugg, Dickson
Dyer, Lake, Crockett	J. D. Brewer (Dyer), Dyersburg
Dyer, Lake, Crockett	W. L. Sumners (Lake), Ridgely
Dyer, Lake, Crockett	W. H. Stallings (Crockett), Friendship
Fayette-Hardeman	John Morris, Somerville
Fentress	J. Peery Sloan, Jamestown
Five-County	Leo C. Harris, Sr., Lawrenceburg
Franklin	James P. Moon, Winchester
Gibson	George E. Spangler, Humboldt
Giles	W. K. Owen, Pulaski
Greene	L. E. Dyer, Greeneville
Grundy	W. A. Brewer, Monteagle
Hamblen	P. L. Henderson, Morristown
Hamilton	J. C. Brooks, Chattanooga
Hamilton	W. E. Bryan, Chattanooga
Hamilton	J. Marsh Frere, Chattanooga
Hamilton	F. O. Pearson, Chattanooga
Hamilton	A. M. Patterson, Chattanooga
Haywood	John M. Chambers, Brownsville
Henry	W. G. Rhea, Paris
Hickman	None
Humphreys	None
Jackson	None
Knox	M. S. Roberts, Knoxville
Knox	Kyle Copenhaver, Knoxville
Knox	Ralph Monger, Knoxville
Knox	R. B. Wood, Knoxville
Lauderdale	None
Lincoln	None
Loudon	None
Macon	None
Madison	Glenn Batten, Jackson
Madison	W. C. Ramer, Lexington
Maury	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens
Monroe (None of the members will agree to serve as delegates. K. C. Kimbrough, M.D., Secretary).	
Montgomery	B. H. Webster, Clarksville
Obion	None
Overton	W. M. Breeding, Livington
Polk	None
Putnam	W. A. Howard, Cookeville
Roane	None
Robertson	J. S. Freeman, Springfield
Rutherford	J. B. Black, Murfreesboro
Scott	Milford Thompson, Oneida
Sevier	R. F. Thomas, Sevierville
Shelby	W. L. Rucks, Memphis
Shelby	E. G. Kelly, Memphis
Shelby	A. R. Porter, Jr., Memphis
Shelby	D. H. James, Memphis
Shelby	J. H. Francis, Memphis
Shelby	J. J. Shea, Memphis
Shelby	C. V. Croswell, Memphis
Shelby	J. H. Harris, Memphis
Smith	R. E. Key, Carthage
Sullivan-Johnson	Wm. A. Wiley, Kingsport
Sumner	J. J. Gwin, Hartsville
Tipton	None
Washington-Carter-Unicoi	J. R. Moody, Erwin
Weakley	None
White	E. B. Clark, Sparta
Williamson	J. O. Walker, Franklin
Wilson	None

DR. WM. BRITT BURNS (Shelby County): Mr. Chairman, inasmuch as there are several vacancies and absentees in all of the delegations, I move you that all of the members present who are not delegates be seated as delegates to the extent of filling the quota allowed to each county.

DR. H. B. EVERETT (Shelby): I second the motion.

THE SPEAKER: The motion is to seat any member who may be here from the county societies whose delegates were absent in the roll call, so that they will be represented. Are you ready for the question?

The question was called for, the motion was put to a vote and was carried.

DR. EVERETT: Mr. Speaker, I should like to request that Dr. J. L. McGehee take the place of Dr. Francis from Shelby and Dr. R. L. Sanders take the place of Dr. Harris from Shelby.

THE SPEAKER: Are there any other societies who wish to move substitutions to fill the vacancies? If not, that will be done, and I will declare a quorum present and we will proceed to the business of the session.

I should like to have a motion to the effect that we suspend the ordinary order of business and proceed in a manner that will expedite the whole business in one day.

DR. EVERETT: Mr. Speaker, I make such a motion, that we suspend the by-laws for this meeting and that the business be carried on as expeditiously as possible.

The motion was seconded by Dr. E. G. Wood, Knoxville, and carried.

COMMITTEES APPOINTED

THE SPEAKER: We will now appoint the Reference Committees. With the thought that we will expedite matters, we will appoint experienced men.

Credentials Committee — Dr. Ralph Monger, Chairman, Knoxville; Dr. J. J. Ashby, Nashville; Dr. E. G. Kelly, Memphis.

Committee on Reports of Officers—Dr. M. S. Roberts, Chairman, Knoxville; Dr. Burnett Wright, Nashville; Dr. C. V. Croswell, Memphis.

Committee on Reports of Committees—Dr. W. C. Chaney, Chairman, Memphis; Dr. Kyle Copenhaver, Knoxville; Dr. J. C. Pennington, Nashville.

Committee on Resolutions—Dr. J. O. Manier, Chairman, Nashville; Dr. A. R. Porter, Jr., Memphis; Dr. J. C. Brooks, Chattanooga.

Committee on Amendments to Constitution and By-Laws—Dr. J. M. Frere, Chairman, Chattanooga; Dr. J. S. Freeman, Springfield; Dr. W. L. Rucks, Memphis.

Those are the committees. Govern yourselves accordingly.

NOMINATING COMMITTEES

I will give you three minutes' intermission to appoint your nominating committees.

A three-minute recess was taken.

THE SPEAKER: Are you ready to submit the names of your members of the Nominating Committee?

DR. W. L. WILLIAMSON (Shelby): Western Tennessee elected Dr. Arthur Porter, Jr.; Dr. Jere Crook, Jackson; Dr. J. T. Nardo, Somerville.

DR. C. M. HAMILTON (Davidson): Mr. Speaker, Middle Tennessee appointed Dr. Burnett Wright, Nashville; Dr. John S. Freeman, Springfield; Dr. T. R. Ray, Shelbyville.

DR. RALPH MONGER (Knox): East Tennessee appointed Dr. Hiram Laws, Chattanooga; Dr. Lee K. Gibson, Johnson City; and Dr. Ralph H. Monger, Knoxville.

THE SPEAKER: Will that committee please get together?

THE SECRETARY: When they form and select a chairman, there is some correspondence with reference to the nominations to be referred to them.

MINUTES OF LAST MEETING

THE SPEAKER: Minutes of the last meeting.

THE SECRETARY: Mr. Speaker, the minutes of the previous meeting were published in the October issue of the JOURNAL, 1942.

DR. EVERETT: Mr. Speaker, I move you, sir, that the minutes as published in the October, 1942, issue of our JOURNAL be adopted and the reading of the minutes be dispensed with.

The motion was seconded by Dr. J. L. Crook, Jackson, and was put to a vote and carried.

TREASURER'S REPORT

THE SPEAKER: We will now have the Treasurer's report.

DR. C. M. HAMILTON: Mr. Speaker, a certified audit of the accounts of the Society I wish to submit as my report.

REPORT OF AUDIT FOR YEAR ENDED DECEMBER 31, 1942

To the Chairman and Board of Directors, Tennessee State Medical Association,

Nashville, Tennessee.

SIRS:

We have audited the cash receipt and disbursement records of the Tennessee State Medical Association for the year ended December 31, 1942. The results of our examination are presented in the comments on audit and on the exhibit and schedules designated as follows:

Exhibit "A"—Statement of Receipts and Disbursements, Year Ended December 31, 1942.

Schedule A-1—Cash in Banks at December 31, 1942.

Schedule A-2—Statement of Receipts by Months, Year Ended December 31, 1942.

Schedule A-3—Statement of General Fund, Year Ended December 31, 1942.

Schedule A-4—Investments, December 31, 1942.

Comments on Audit

Cash in Banks, $5,603.23, was verified by reconciliations of statements as rendered by the banks with the Association's records. All cash receipts appearing in the records were traced into the depositories. In verification of disbursements canceled checks were examined as to signatures and endorsements and the amounts and payees thereon were compared with the entries on the cash disbursements record.

Investments, $19,429.05, and Cash Available for Investment, $1,524.54. The Association had funds invested to the total amount of $19,429.05 at December 31, 1942. Investments were represented by $17,362.05 in First Mortgage Real Estate Notes, at cost; $1,000.00, par value, Bonds of the Home Owners Loan Corporation, at cost, $1,031.00; and $1,400.00, face value, Series "F" Defense Bonds, at

cost $1,036.00. These securities were examined by our representative.

On Schedule A-4 the items comprising invested funds are listed and for the purpose of record all investments are carried at cost.

Mr. W. L. Whitaker of the First Mortgage Company, Nashville, Tennessee, informed us that the Association had with that company on December 31, 1942, a cash balance of $1,524.54, representing principal and interest collected on the mortgage notes not remitted to the Association at December 31, 1942.

General

Office furniture, fixtures, and equipment were insured against loss by fire to the amount of $500.00. The policy was renewed in the year 1942 for a period of three years and will expire July 20, 1945. An additional item, filing cabinet, was acquired in the year 1942 at a cost of $57.75, as shown on Schedule A-3. The fidelity bond of $10,000.00 on the Treasurer, Dr. Charles M. Hamilton, was continued in effect for one year by payment of the annual premium during the year.

The records are maintained on a cash receipt and disbursement basis and we have not attempted to prepare a schedule of assets and liabilities at the close of the year, December 31, 1942. However, items of expense incurred in the year 1942 and unpaid at the end of the year consisted of the following:

Social Security Tax for the Last Quarter of 1942 (Payable in January, 1943)	$ 35.42
Excess Deductions to Be Refunded	2.75
Cost of December, 1942, Issue of JOURNAL (including extra copies, index, roster, mailing, etc.)	487.50
Office Expenses and Supplies	5.80
Total	$531.47

During the year 1942 the Association published twelve issues of the JOURNAL and paid for thirteen issues, two being the November and December, 1941, issues. The December, 1942, issue of the JOURNAL was paid for in March, 1943.

Respectfully submitted,

OSBORN AND PAGE,
Certified Public Accountants.

April 3, 1943.

EXHIBIT "A"

Statement of Receipts and Disbursements for Year Ended December 31, 1942

RECEIPTS—SCHEDULE A-2

Dues	$ 9,815.00	
Assessments	2,606.00	
Interest on Investments	282.80	
Principal of Investments	967.57	
Advertising	6,454.77	
Exhibit Space	760.00	
Subscriptions and Extra Copies of JOURNAL	35.60	
Cuts	21.25	
Miscellaneous	9.36	
Total Receipts		$20,952.35

DISBURSEMENTS—SCHEDULE A-3

MEDICAL JOURNAL	$ 4,756.75	
Convention Expense	741.18	
Salaries	6,748.00	
Board of Trustees and Committees	94.19	
Medical Education Committee	2,250.00	
Investments	1,036.00	
General Expenses and Disbursements	2,613.89	
Total		$18,240.01
Less—Excess of Social Security Tax Withheld Over Payments to Collector of Internal Revenue	3.87	
Total Disbursements		$18,236.14
Excess of Receipts Over Disbursements		$ 2,716.21
Represented by:		
General Fund Balance, December 31, 1941	$ 2,887.02	
General Fund Balance, December 31, 1942	5,603.23	
Increase in General Fund Balance, Year Ended December 31, 1942		$ 2,716.21

SCHEDULE A-1

Cash in Banks December 31, 1942

American National Bank		
Balance per Bank Statement, December 31, 1942	$5,898.04	
Add—Deposit in Transit	54.00	
Deduct—Outstanding Checks:		
No. 215—Dr. O. H. Williamson	$ 4.00	
No. 216—Dr. C. M. Hamilton	100.00	
No. 217—Committee on Postgraduate Internal Medicine	750.00	
	854.00	
Balance per books, December 31, 1942		$5,098.04
Third National Bank		
Balance per Bank Statement, December 12, 1942	$ 505.19	
Balance per Books, December 31, 1942		$ 505.19
Cash in Banks, December 31, 1942—Exhibit "A"		$5,603.23

SCHEDULE A-3

Statement of General Fund Year Ended December 31, 1942

Balance, January 1, 1942		$ 2,887.02	
RECEIPTS			
Dues	$9,815.00		
Assessments	2,606.00		
Interest on Investments	282.80		
Payment on Principal of Investments	967.57		
Advertising	6,454.77		
Exhibit Space	760.00		
Subscriptions and Extra Copies of JOURNAL	35.60		
Cuts	21.25		
Refunds	9.36		
Total Receipts		$20,952.35	
Total Balance and Receipts			$23,839.37
DISBURSEMENTS			
MEDICAL JOURNAL:			
Printing	$3,999.00		
Extra Copies	370.00		
Copyright	24.00		
Mailing	360.00		
Miscellaneous	3.75		
Total—Exhibit "A"		$ 4,756.75	
Convention Expense:			
Badges	$ 33.65		
Hotel	37.65		
Banquet	118.00		
Reporting Service	389.65		
Programs, Etc.	146.23		
Miscellaneous	16.00		
Total—Exhibit "A"		$ 741.18	
Salaries:			
Dr. H. H. Shoulders	$2,500.00		
Dr. W. M. Hardy	1,800.00		
Miss Willard Batey	1,500.00		
Mrs. Ethel Harrison	948.00		
Total—Exhibit "A"		$ 6,748.00	
Board of Trustees and Committees:			
Meetings, Expense, Board of Trustees and Committees Exhibit "A"		94.19	
Medical Education Committee:			
Postgraduate Instruction — Exhibit "A"		2,250.00	
Investments:			
Additional Investments—Exhibit "A" and Schedule A-4		1,036.00	
General Expenses and Disbursements:			
Postage	$ 195.00		

Office Expense, Supplies, and Equipment:			
Expense and Supplies	294.33		
Equipment (Filing Cabinet)	57.75		
Rent	822.69		
Lights	26.64		
Telephone and Telegraph	168.30		
Letter Service	31.00		
Social Security Tax (Net)	66.36		
Towel Service	10.00		
Bond Premium—Treasurer	25.00		
Rent—Safety Deposit Box	3.60		
Reprints	58.98		
Travel	338.16		
Cuts	184.00		
Accounting Service	80.00		
Medical Directory	15.00		
Refunds	55.00		
Miscellaneous	82.08		
Dr. C. M. Hamilton, Honorarium, 1942	100.00		
Total		$18,240.01	
Total—Exhibit "A"		$ 2,613.89	
Less—Excess of Social Security Tax Withheld Over Payments to Collector of Internal Revenue		$ 3.87	
Total Disbursements—Exhibit "A"			$18,236.14
Balance in General Fund, December 31, 1942—Schedule A-1			$ 5,603.23

SCHEDULE A-4

Investments December 31, 1942

First Mortgage Real Estate Notes:

Maker	*Dated*	*Due*	*Amount*
J. H. Horn	6-1-32	6-1-40	$ 1,843.41
General Securities Company	4-1-36	5-1-41	850.00
Anna Mary Bransford	7-2-37	10-1-47	1,950.00
A. D. Talley	7-1-36	4-1-41	650.00
Louise Shields	9-1-36	10-1-46	150.00
Eliza A. Matthews	4-1-37	5-1-47	1,650.00
D. Ray Thomas	3-1-39	5-1-49	2,300.00
M. E. Hooper	8-1-40	9-1-55	4,019.56
Julia R. Trabue	8-1-41	Monthly	3,649.08
W. W. Johnson	11-1-39	12-1-54	300.00
Total			$17,362.05

Bonds:		
$1,000 Par H.O.L.C. 3's, May 1, 1952/41	$1,031.00	
$1,400.00 Par Series "F" Defense Bonds	1,036.00	$ 2,067.00
Total		$19,429.05
Cash, Available for Investment, on Deposit with First Mortgage Co.		$ 1,524.54

RECEIPTS FOR MONTHS ENDING MARCH 31, 1943

	Dues	*Rent*	*Adv.*	*Misc.*	*Total*
January	$3,074.00		$ 458.19	$40.50	$3,572.69
February	1,492.00	$240.00	349.87	25.00	2,106.87
March	1,686.00	80.00	488.43	2.00	2,256.43
Total	$6,252.00	$320.00*	$1,296.49	$67.50	$7,935.99

*Office space for Procurement and Assignment Service $40 per month.

Balance in Bank, December 31, 1942		$5,603.28
Receipts	$7,935.99	
Disbursements	4,003.94	
Excess of Receipts Over Disbursements		3,932.05
Balance in Bank, March 31, 1943		$9,535.28

DISBURSEMENTS FOR MONTHS ENDING MARCH 31, 1943

	Legislative Exp.	*Exp.*	*Med. Educa.*	*Misc.*	*Journal Exp.*	*Total*
Jan.	$600	$ 643.84		$ 95.80		$1,339.64
Feb.		850.32		70.50	$820.50*	1,741.32
March		566.06	$317.50	39.42		922.98
Total	$600	$2,060.22	$317.50	$205.72	$820.50	$4,003.94

*Journal expense for December and January.

Outstanding Accounts, April 1, 1943:		
Tennessee Legislative Service		$ 63.00
Underwood Elliott Fisher (repairing typewriter)		10.50
R. G. Fish, Secretary, Henry County Society (refund of dues sent in excess)		22.00
Bush & Barrick—gavel		15.95
Commercial Letter Shop		1.50
McQuiddy Printing Company:		
February JOURNAL	$360.50	
March JOURNAL	407.00	
Supplies	5.60	773.10
Total		$886.05

SCHEDULE A-2

Statement of Receipts by Months for Year Ended December 31, 1942

	Total	*Dues*	*Assessments*	*Interest on Investments*	*Principal of Investments*	*Advertising*	*Exhibit Space*	*Subscriptions and Extra Copies of Journal*	*Cuts*	*Miscellaneous*
January	$ 4,660.54	$3,234.00	$ 680.00	$100.40	$115.16	$ 448.98	$ 80.00	$ 2.00		
February	3,757.45	2,538.00	538.00			559.25	120.00	2.20		
March	2,540.97	1,596.00	474.00			423.97	40.00	6.00		$1.00
April	3,715.97	972.00	716.00	152.40	852.41	611.80	400.00	4.00		7.36
May	1,256.29	744.00	72.00			357.29	80.00	2.00		1.00
June	767.84	120.00	30.00			603.34		7.00	$7.50	
July	652.08	48.00	58.00			498.68	40.00	2.40	5.00	
August	540.58	18.00	6.00			514.58		2.00		
September	410.57	54.00	6.00			341.82			8.75	
October	586.90	36.00	12.00			532.90		6.00		
November	508.69	83.00	4.00			421.69				
December	1,554.47	372.00	10.00	30.00		1,140.47		2.00		
TOTALS	$20,952.35	$9,815.00	$2,606.00	$282.80	$967.57	$6,454.77	$760.00	$35.60	$21.25	$9.36

THE SPEAKER: Referred to the Committee on Reports of Officers.

REPORT OF THE CHAIRMAN OF THE BOARD OF TUSTEES

Dr. C. M. Hamilton, chairman of the Board of Trustees, read his report.

Two meetings have been held within the last year. The first was April 16, 1942, Peabody Hotel, Memphis, Tennessee; the second at Headquarters' Office, Doctors Building, Nashville, Tennessee, January 10, 1943. The following members were in attendance at the meeting in Memphis: E. R. Zemp, Hiram Laws, J. B. Stanford, W. C. Chaney, Franklin B. Bogart, H. H. Shoulders, and C. M. Hamilton. O. N. Bryan, president-elect, attended by invitation.

A list of the standing and special committees appointed by the Board can be found in the JOURNAL and need not be reiterated at this time.

The question of licensure to emigre physicians was raised. The following motion by Dr. Bogart, adopted unanimously, expresses the feeling of the Board of Trustees very precisely: "I move that we request our Legislative Committee to be on the lookout and to oppose any effort that might be made in the coming legislative session toward a lowering of the standards of educational requirements and alteration of standards with reference to citizenship."

A motion by Dr. Bogart that the traveling expenses of a representative to the Industrial Conference in Chicago be paid from the funds of the Association was approved.

At the meeting in Nashville, January 10, 1943, the following were present: B. L. Jacobs and Hiram A. Laws, Chattanooga; W. C. Chaney, Memphis; O. N. Bryan, H. H. Shoulders, C. M. Hamilton, and John M. Lee (by invitation), Nashville. The Secretary read the minutes of the previous meeting and made a report on the financial statement of the Association which was in good condition.

The Secretary read a letter from Joseph B. Eastman, director of Defense Transportation, suggesting that the annual meeting of the Association be discontinued unless such a meeting would aid in the war effort. The Board of Trustees, wishing to cooperate in this effort as much as possible, agreed to postpone the annual meeting, but decided that the House of Delegates should assemble at the call of the President sometime in April. The Secretary insisted that each member of the Board of Trustees encourage members of the Association to prepare papers for publication in the JOURNAL, since there would be a shortage of material due to postponement of the annual meeting.

A letter from the National Board of Medical Examiners was presented, recommending that alterations be made in the procedure of licensure of doctors in Tennessee to be effective during the war emergency. It was the opinion of the Board that sufficient latitude already exists in the state laws and that further legislation is unnecessary.

In response to a letter submitted by John M. Lee, chairman of the State Council of Health, in regard to obstetrical care of the wives and infant care of the dependents of soldiers in active service, the following resolution was adopted: "It is moved that the Board of Trustees approve in principle the proposition submitted by Dr. Lee with reference to the federal financing of obstetrics and infant care to the wives and newborn infants of soldiers in service and that the Board of Health submit to the Board of Trustees the administrative plans in advance of their adoption by the Board of Health."

Dr. Shoulders introduced a letter from Dr. Olin West, secretary of the American Medical Association, requesting that a Participation Committee of the Tennessee State Medical Association be formed in order to enable a committee to cooperate with the War Participation Committee of the American Medical Association, which was created by action of the House of Delegates in 1942. At the suggestion of Dr. Shoulders the Board of Trustees decided to serve as this committee.

Respectfully submitted,

C. M. HAMILTON, M.D., Chairman.

THE SPEAKER: Referred to the Committee on Reports of Officers.

REPORT OF THE SECRETARY-EDITOR

The Secretary-Editor, Dr. H. H. Shoulders, read his report.

To the House of Delegates of the Tennessee State Medical Association:

I have the honor to submit, herewith, a brief report of the activities of the headquarters office for the year 1942.

Membership

At the end of 1942 there were 1,698 members of this Association. Not all of them paid dues, however. The annual dues for sixty-two were paid by the Association. This was pursuant to an action taken by the Board of Trustees and the House of Delegates last year to the effect that the state dues of members who enter the military service (the Navy, the Army, or the Marine Corps) are to be charged against the reserve fund of the Association for the period of the war. This, of course, represents a corresponding reduction in the revenue of the Association from dues.

Local Component Societies

There has been no alteration in the number of local societies during the year 1942.

Finances

The income of the Association and the sources of income were as follows:

Dues	$9,815.00
Advertising	6,454.77
Exhibit Space	760.00
Miscellaneous	9.36

The audit shows a considerable increase in the income of the Association for the year 1942. This was due largely to the assessment which was passed by this House in 1941, and operated in 1942, but that fund was earmarked for a specific purpose and was placed to the credit of the Legislative Committee. It is not to be treated as a normal income and is not available for routine operation.

Journal

As you doubtless know, twelve full-size issues of the JOURNAL were mailed on time during the year.

It is anticipated that difficulties will be encountered in securing a suitable number of original articles for publication in the JOURNAL during the year 1943, due to the fact that the annual scientific session of the Association is not held. To secure the necessary amount of good material I have taken several steps, among them are these:

First, all the larger societies in the state are requested to forward to the editor information as to papers read before the local society and believed to be eligible for publication.

The papers read before the Memphis and Shelby County Medical Society are required to be published in the bulletin issued by the society and are, therefore, not available to the JOURNAL. So if more papers from Nashville, Knoxville, and Chattanooga appear in the JOURNAL you will understand why.

Second, abstractors were requested to make more liberal abstracts of more articles for publication.

Third, I have obtained from several national publications the privilege of reproducing articles in full in the JOURNAL, which have appeared in them and are regarded as especially valuable.

Fourth, I also have the permission of the *Mayo Bulletin* and the *Lahey Bulletin* to reproduce, in full, articles appearing in these publications.

It is believed that a sufficient amount of instructive and interesting material will be obtained from these several sources to maintain the JOURNAL on a high scientific plane even in spite of the handicap under which we will operate this year.

War Preparedness Committee

It seems appropriate at this time to mention some extraordinary activities of the Association.

You will remember that in 1940 the American Medical Association created a War Preparedness Committee and requested that a like committee be formed in each state.

This committee was created by this Association and functioned most effectively. The expense of this activity was financed entirely by the State Association.

A little later the Procurement and Assignment Service was created. Up until recently the activities of this organization were financed by the Association. The Association contributed the full-time services of one employee, office space, office equipment, postage, and stationery. In the latter part of the year the expense of this function was taken over by the Procurement and Assignment Service. The salary of the employee, formerly paid by the Association, is now paid by the Procurement and Assignment Service, and in addition a small rental is paid the Association for the space occupied.

The functions of the headquarters office have thus been complicated, but it is all incident to the war and no complaint is made.

It may be said as a credit to this committee that the profession of Tennessee has furnished to the armed services more than six hundred (600) doctors and without creating distress areas, such as have been created in other states.

With Reference to the Future

There comes across the desk of the editor a huge amount of material, some of which is encouraging and much of which is distressing. The encouraging part of it consists of statements and data which furnish adequate proof that the men and women in the various armed services of the United States are receiving the best medical care ever received by the combatants of any country. This statement is supported by statistical data from all the various fronts where our soldiers have been engaged.

It is also true that the civilian population of this country are receiving a high quality of medical care as compared to most countries in wartime. The health of the nation is reported as being good.

News of distressing nature is to the effect that there is a possibility, and maybe a likelihood, that communicable diseases will be imported from various war fronts. The profession, by and large, has had no opportunities to become familar with these diseases. It seems essential that we be alert for the recognition of some of these unusual diseases to the end that proper treatment and control measures be employed as soon as possible.

Another bit of distressing information concerns changes which may take place in the practice of medicine. One change which is possible concerns the medical treatment of industrial employees in distress areas, if such distress should arise.

As you know, the United States Public Health Service has been showing an increasing concern for the medical care of people. It has seemed at times that the concern of the department, for medical care, is greater than its concern for the proper functioning of the department in the field of disease prevention.

Provisions have been made whereby a civilian doctor may be commissioned by the United States Public Health Service to engage in practice in areas where there is distress. This, of course, is not to be opposed if distress occurs, but it is also our function to see to it that distress does not occur.

Prepayment Plans

As you all know, prepayment plans for the financing of medical care have been under discussion in medical literature for a great many years. In many cities, and in a few states, such plans have been put into operation. An experience is being accumulated which should be of value in guiding all other states in the future should they follow in the adoption of these measures.

There are in all five states with medical prepayment plans in operation. They are Massachusetts, New Jersey, Pennsylvania, Michigan, and California. Most of them operate under an enabling act of the state legislature of each respective state. These enabling acts are not uniform in their provisions. In some it is provided that the administration is under the insurance department of the state. In others it is placed under the welfare department of the state. They are not uniform in several other particulars. This lack of uniformity will be of advantage to those who have not adopted such plans as yet, for the reason that a study of the experience of several different plans should facilitate the formation and adoption of sounder plans if it seems necessary to adopt such a plan for financing medical care later on.

It seems to me to be urgently necessary, therefore, that this question receive consideration by

the profession of Tennessee and to such an end it is recommended that a committee on *prepayment plans for the financing of medical care* be created by this House in this session.

It should be the function of such a committee to study these several plans in operation with a view to determining their advantages and disadvantages, and to the further end that information be compiled to guide this House of Delegates and the profession of Tennessee in the formation of sound conclusions, and in drafting legislation should such a step seem desirable at some future date.

The Blue Cross Hospital Plan

In this connection it is necessary to call attention to the Blue Cross Hospital Plan which is sponsored by the American Hospital Association. As you all know, it is for the financing of hospital care on a prepayment basis.

There is a relatively strong group of people within the organization of hospital administrators who feel that a medical care plan in connection with their hospital plans should be adopted by them. I regard this proposal as very dangerous.

Hospital benefits and medical care benefits under any plan should be entirely separate. The profession could lose its independence and the independent doctor could lose his doctor-patient relationship just as effectively under a medical care prepayment plan operated by a hospital as it could by one operated by the state or federal government.

The study of these hospital plans should be a part of the function of the committee above referred to, notwithstanding the fact that we already have a hospital committee.

This discussion may be considered by some as being out of place in this report, but, in my opinion, it is not. I have included this brief discussion in this report for the purpose of giving to you a glimpse of what I have witnessed from the position I occupy and something of my view of the future.

The Practice of Medicine After the War

The practice of medicine after the war has already become a topic for discussion. A committee on postwar medical services was created recently by the American Medical Association and I, as Speaker of the House of Delegates, was made a member of it. A large conference on this subject was held in New York on March 16, 1943, under the auspices of the Finley Foundation.

Politicians and statesmen are giving attention to the subject. As witness of this fact your attention is called to the Beveridge Report made in England and the Report of the Resources Planning Board submitted to the Congress by the President of the United States only recently. In both of these reports medical care for all the people by the government is featured, though not on the same basis.

Obviously, it is impossible to do more than mention these developments as they have appeared on the horizon of the future. I have done this for the purpose of bringing these matters to the attention of the leadership of organized medicine in Tennessee in the belief that proper thought and consideration will be given to them and to the end that such social reforms as may be adopted, after the war, will not do violence to the principles which we regard as essential to the best medical care of the people and to sound progress in the science and art of medicine.

H. H. SHOULDERS, M.D.,
Secretary-Editor.

April 11, 1943.

THE SPEAKER: Referred to the Committee on Reports of Officers.

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Nashville, chairman of the Committee on Public Policy and Legislation, read the report of the committee.

Your committee wishes to report that its principal activity during the past year has been directed toward securing passage of a Basic Science Bill by the Tennessee Legislature at its 1943 session.

We now report that a Basic Science bill was passed by the 1943 Legislature and was signed by the governor.

The bill as passed was not quite the same as was passed at the 1941 session and in some respects does not accomplish completely the reform contemplated in the original bill—namely, the restriction of the practice of all the healing arts to those who have demonstrated their fitness by passing an examination in the basic sciences. As the law now stands, osteopaths and chiropractors and naturopaths are excepted from the provisions of the act so long as they practice within the limits of their respective callings—namely, so-called drugless healing. The provision is made that the act shall not deprive any person with a license issued prior to the passage of the act from practicing in the same manner as permitted prior to the passage of the act. Further provision is made that any person who previously was authorized by law to obtain a narcotics license cannot be deprived of the privilege of renewing such license.

The effect of the act is to deny the right to future practitioners of osteopathy and chiropractic of obtaining narcotics licenses or of possessing, prescribing, or administering drugs as do medical doctors, but it is not retroactive and does not prevent those osteopaths and chiropractors now holding licenses from continuing to practice as they have done in the past.

The Basic Science law provides two further advantages to medical students. First, it repeals the requirement for preliminary examination. Second, it permits a medical student to stand his basic science examination at the end of his second year of medical school.

A brief background of the events leading up to the passage of this act will doubtless be of interest to the House of Delegates.

Last summer, Dr. Carter Williams, Commissioner of Health, and Dr. W. O. Baird, Commissioner of Institutions, asked for a meeting with the Nashville members of the committee, Drs. Shoulders and Shofner, and at this meeting it was stated by Dr. Williams and Dr. Baird that they had been asked by Governor Cooper to discuss certain changes in our original Basic Science bill which would make it acceptable to the governor. We agreed to the suggested changes which did not alter the main purpose of the bill and the bill was rewritten by the governor's legal advisers and approved by us.

The bill as introduced into the Senate by Dr. Stallings was the one which was drafted according to his specifications and which we were led to believe had the governor's approval.

Shortly after the bill was introduced Governor Cooper asked for a conference with the chairman of this committee and the chairman asked Drs. L. W. Edwards and J. O. Manier to accompany him. Also present at the conference were the governor's leaders, Senator Ballew and Speaker Broom, of the House. At this meeting the governor politely, but firmly, informed us that he doubted that our bill could be passed and he was supported in this view by Senator Ballew and Speaker Broom. The governor further stated that if the bill were passed in its present form he would veto it again. He agreed that there should be some way to prevent the cultists from practicing medicine, but thought that requiring them all to pass a basic science examination would be too much of a hurdle for men who wished to practice only such things as osteopathy and chiropractic. He stated that he wished to restrict the "rubbing doctors" to rubbing, but that he did not think that in order to rub they needed a thorough knowledge of the basic sciences. The upshot of this meeting was that we had a new bill written by our attorneys which exempted the chiropractors and osteopaths from the provisions of the Basic Science bill so long as they refrained from using drugs and providing that possession of a narcotics license were *prima facie* evidence of violation of the law.

Dr. Shoulders and your chairman had numerous conferences with the Senate and House Committees on Public Health to which the bill was referred. There was one open hearing by the Senate committee at which arguments against the bill were presented by representatives of the osteopaths and the chiropractors and arguments for the bill presented by our attorneys, Mr. Charles Cornelius and Mr. Percy McDonald.

At the open hearing Mr. Richard Adkinson, attorney for the chiropractors, stated that he felt that the bill was fair in that it permitted the chiropractors to practice within the limits of their calling and that their opposition was untenable. The osteopaths argued that they were qualified to practice medicine by education and training and that if they were deprived of the use of drugs a large part of their practices would be taken from them.

There was a hard fight in both the Senate and the House. The governor kept his word and threw his strength behind the new bill. It became obvious that it would be impossible to pass the bill with its provision applying to practitioners already licensed to use drugs and narcotics. A compromise was offered excepting those practitioners now licensed. After consultation with Dr. Stanford and other members of the committee, this amendment was accepted by us. The bill was passed and signed by the governor. It is not a perfect law, but it is a long step in the right direction and we have been assured by our politician friends that it is much easier to amend a bill to strengthen it than it is to pass an original bill. We have reason to know that the latter is no easy task.

At the 1943 session of the Legislature a bill was introduced to license naturopathic physicians and creating a "State Board of Naturopathic Examiners." This bill gave rather broad powers to the naturopathic physician and your committee felt that it was a bad bill. We consulted with our attorneys and were advised that open opposition by us to this bill would weaken our chances to pass our Basic Science Bill. We were assured, however, by members of both the House and Senate that the naturopathic bill had no chance of passage.

Accordingly, we did not actively oppose the naturopathic bill. Contrary to our expectations, the bill was passed by a big majority in both houses. We then communicated with the governor through Dr. O. N. Bryan and asked that he veto the bill. The governor agreed and did veto the bill. By that time the Legislature was in a rebellious mood and the bill was passed overwhelmingly over the governor's veto and so became law.

N. S. SHOFNER, M.D.
H. B. EVERETT, M.D.
H. H. SHOULDERS, M.D.
T. R. RAY, M.D.
JAMES B. STANFORD, M.D.
M. S. ROBERTS, M.D.

THE SPEAKER: Referred to the Committee on Reports of Committees.

REPORT OF THE COMMITTEE ON MATERNAL WELFARE

Has anybody that report to read?

DR. HIRAM LAWS: Mr. Speaker, let me make this motion right now, if you will. Although we are in a war, I feel that our President should receive all courtesy that we can extend him in a small meeting like this, so I make a motion that the President of the Tennessee State Medical Society be seated up there on the rostrum. (Applause.)

THE SPEAKER: You have heard the motion. Is there any objection? All in favor say "aye."

The motion was carried unanimously.

THE SPEAKER: Dr. Laws, escort the President to the platform.

DR. LAWS: Gentlemen, your President, Dr. J. B. Stanford. (Applause.)

THE SPEAKER: I hope this will compensate you for the disappointment of not presiding at a regular meeting.

REPORT OF THE COMMITTEE ON CHILD WELFARE

No response.

REPORT OF THE CANCER COMMITTEE

Dr. Ralph H. Monger, Knoxville, chairman of the Cancer Committee, read the report of the committee.

The Cancer Committee had a meeting in Memphis at the time of the State Meeting in 1942, but there was no quorum present.

This committee has not carried out its program as previously outlined, by conducting papers and symposia among the various county societies, because of so many men being in the service, gas rationing, and difficulty in traveling. There has been very little functioning of any kind of this committee during the past year.

RALPH H. MONGER, M.D., Chairman,
Cancer Committee.

THE SPEAKER: Referred to the Committee on Reports of Committees.

REPORT OF COMMITTEE ON SCIENTIFIC WORK

THE SECRETARY: Mr. Chairman, owing to the action of the Board of Trustees, no scientific program was prepared. That is my report, Mr. Speaker.

REPORT OF COMMITTEE ON POSTGRADUATE INSTRUCTION IN INTERNAL MEDICINE

THE SPEAKER: Committee on Postgraduate Instruction in Internal Medicine.

Dr. J. O. Manier, chairman, read the report of the Committee on Postgraduate Instruction in Internal Medicine.

To the House of Delegates of the Tennessee State Medical Association:

Following the meeting of the Tennessee State Medical Association in Memphis, Tennessee, in April, 1942, the chairman of the Committee on Postgraduate Instruction in Internal Medicine contacted the Commonwealth Fund in order to determine whether they would be interested in continuing their grant in aid to the Tennessee State Medical Association for conducting a course of postgraduate instruction in surgical diagnosis during the years 1943 and 1944.

In June of 1942, we were notified by the Commonwealth Fund that they had granted our request for aid in the suggested course to be conducted in surgical diagnosis and the program for this course was then placed in the hands of the Committee on Postgraduate Instruction in Surgical Diagnosis with Dr. John Lucius McGehee of Memphis as chairman.

The course in internal medicine was continued through the summer and fall of 1942 with the same success that had been true in the first year of its existence.

The course was closed in January, 1943, and I am hereby filing as Exhibit A to this report a copy of the formal printed report of the Tennessee Extension Plan of Postgraduate Medical Teaching in Internal Medicine. To summarize only a few points of this course which has been completed—the number of men enrolling for the course was 1,304, the instructor participated in 1,294 private consultations, and the average attendance over all circuits was 70.5 per cent. This average attendance, of course, is not quite as high as has existed in the two preceding courses, but one would feel that it is an excellent average in view of the inroads that the Army had made upon the civil medical population and the further fact that those remaining at home had much more than they normally had to do.

The books covering the finances of the course in internal medicine have been audited by certified public accountants and all funds found properly accounted for. As had been the case in the two preceding courses—i. e., obstetrics and pediatrics—a small surplus remained after all outstanding bills had been paid and this, as in the past, was distributed to the agencies which had contributed to the fund for conducting the course, the refund being made on a percentage basis of the amount originally contributed by each agency.

On behalf of the Committee on Postgraduate Instruction in Internal Medicine, I wish to say that it has been a matter of great pleasure to us all to have served on this committee, and that I think the profession of the State Association cannot only look back with pride upon the courses of postgraduate instruction, which have been completed in this state, but also can look forward during the next two years to one in surgical diagnosis that probably will eclipse in its satisfaction those of the past under the chairmanship of Dr. McGehee and with Dr. Branch as an instructor.

J. O. MANIER, M.D., Chairman.

EXHIBIT A

Report of Two Years of Postgraduate Extension Medical Training

Six years ago the Tennessee State Medical Association opened its first program of extension medical training in the subject of obstetrics. This was followed by a course in pediatrics and the present one which has just closed in internal medicine. Two years were devoted to each course, since it required twenty-four months to cover subject matter offered in all designated teaching centers. The present program in internal medicine opened in February, 1941, Dr. Robert P. McCombs, from the faculty of the Jefferson Medical College, Philadelphia, Pennsylvania, having been selected as the instructor.

The program was under the supervision and direction of a Postgraduate Committee, the membership of which was: J. Owsley Manier, M.D., chairman; Franklin B. Bogart, M.D.; W. C. Chaney, M.D.; O. W. Hyman, Ph.D.; R. H. Kamp-

meier, M.D.; John M. Lee, M.D.; W. L. Williamson, M.D.; R. B. Wood, M.D.

The budget of the committee included contributions from those who had contributed generously to the previous programs—namely, the Tennessee State Medical Association, Tennessee State Department of Health, Vanderbilt University School of Medicine, the University of Tennessee School of Medicine, and the Commonwealth Fund of New York. The amounts contributed by the foregoing agencies, together with the estimated fees from physicians, on a basis of $10.00 from each participant, $2.50 for interns, and $3.50 for colored physicians made up the budget as follows:

Postgraduate Instruction in Internal Medicine

Annual Budget

Instructor	$10,000.00
Field Representative	4,000.00
Stenographer	1,200.00
Office Supplies—Stationery	2,800.00
	$18,000.00

Contributing Ageneies

Tennessee Medical Association	$ 1,500.00
State Department of Health	1,500.00
Vanderbilt University	500.00
University of Tennessee	500.00
Commonwealth Fund	10,500.00
	$14,500.00
Enrollment fees estimated on basis of 350 per year	3,500.00
	$18,000.00

As in the courses given in the past, the state was divided into nine circuits containing five teaching centers, each so that the instructor was enabled to cover one subject each week, appearing on a certain day in each teaching center for that purpose, and as a result taking a period of ten weeks' time to cover the entire circuit. As had been the case in the past, the first circuit was opened in West Tennessee, and then subsequently the dates alloted to the succeeding circuits to some extent revolved around conditions of temperature and climate as the endeavor was made to offer the circuits occurring in the summer in the mountains of East Tennessee, where cooler areas could be found for summer classes.

Also the actual rotation of circuits was determined well in advance of the course and a map covering this rotation published in the JOURNAL of the Tennessee Medical Association with dates shown for each circuit so that physicians could make their plans accordingly and know exactly when the course might be expected to come to their county.

The results of the program are best shown by the following statistical table, taken from the record of attendance kept by the instructor, and the reports which were subsequently filed in the office of the committee.

Statistical Results

Number of teaching circuits in districts	9
Number of teaching centers	46
Number of colored teaching centers	3
Number of counties included to date	95
Number of enrollments	1,304
Number of private consultations	1,294
Average percentage of attendance all circuits	70.5
Number receiving Certificate of Attendance	756
Number receiving lecture notes or manual	1,258

Certificates of attendance were issued to all physicians who attended eight or more of the ten lectures in the course. Records of attendance were carefully kept by the instructor throughout the course in each circuit so that the tabulations on percentage of attendance that appear in the above statistical table are therefore numerically correct.

It has been found that the above-mentioned certificates have become useful as evidence of postgraduate study pursued since graduated when attached to applications for a commission in the military service.

Despite the fact that, during the years 1941 and 1942, many physicians in the State of Tennessee volunteered for military service, and that during 1942 most of the physically fit doctors under forty-five years of age were inducted into the armed services of the United States, yet the number of matriculates in the course in internal medicine compared more than favorably with similar ones in the preceding courses in pediatrics and obstetrics. No doubt this bespeaks the general widespread interest in the subjects embraced in this course in view of the fact that they were largely those which had to be met by all practicing physicians day in and day out unless their work was restricted to a very narrow field of specialization.

For the first time the Committee on Postgraduate Instruction in Tennessee had the opportunity of carrying its postgraduate education program to all physicians in uniform in the State of Tennessee without cost of any kind. Manuals and certificates of attendance were given to all Army and Navy participants just as to matriculates who might have been in civil practice. It was an interesting fact that ninety-nine medical officers at Camp Forrest, Tennessee, and thirty at Fort Oglethorpe, Georgia, just outside of Chattanooga, availed themselves of the opportunity to take the course in internal medicine.

A total of 1,255 manuals containing the instructor's printed lectures were issued and 756 certificates of attendance were awarded.

The following is the outline of the subject matter covered in the course in internal medicine:

Outline of Postgraduate Course in Internal Medicine

By DR. ROBERT P. MCCOMBS, *Instructor*
Philadelphia, Pennsylvania

1. "Disorders of the Heart." Recognition and significance of important cardiac irregularities and murmurs; diagnostic and prognostic criteria

of the various common types of heart disease and heart failure and differentiation from functional conditions; the diagnosis and management of angina pectoris and coronary thrombosis.

2. (a) "Cardiovascular Renal Disease." Classification of medical diseases of the kidneys; arteriosclerosis; hypertension in its various forms and its relationship to cardiorenal disease. (b) "The Management of Heart Failure and Renal Failure."

3. "Nutritional Diseases." Dietary and vitamin deficiency states; the value and common sense use of vitamins and diet in treatment in the light of present-day knowledge.

4. "The Anemias and Blood Dyscrasias." Practical classification of common types; their recognition, differential diagnosis, and treatment; distinction between hyperchromic and hypochromic anemias, with a brief discussion of hemolytic anemias, purpura, polycythemia, and leukemia as seen in general practice.

5. "Diabetes Mellitus." Its symptoms, diagnosis, and management; the incidence and treatment of its complications. This subject is discussed primarily from the general practitioner's point of view.

6. "Chronic Nontuberculosis Pulmonary Diseases." The recognition and management of chronic bronchitis emphysema, bronchiectasis, lung abscess, bronchial asthma, and cancer of the lung, with mention of atelectasis, pneumoconiosis, and pulmonary fibrosis.

7. "The Uses and Abuses of Sulfanilamide, Sulfapyridine, and Sulfathiazole in the Practice of Medicine." A clear-cut discussion of when and how to use these drugs in streptococcal, gonococcal, meningoccal, and pneumococcal infections, including a discussion on pneumonia. Their value in other infections, the contraindications and dangers.

8. "Gastrointestinal Diseases." The clinical recognition and management of gastric and duodenal ulcers, cancer of the stomach and bowel.

9. "Gastrointestinal Diseases." (a) Consideration of functional gastrointestinal disorders, their management and differentiation from organic disease. Ulcerative and amebic colitis are discussed, together with tuberculosis of the bowel and diverticulitis. (b) A brief discussion of biliary tract disease.

10. "Chronic Arthritis." Classification of the different clinical types, their etiology in so far as is known, and a sound evaluation of their management.

THE SPEAKER: Referred to the Committee on Reports of Committees.

We will now have the report of Dr. McGehee on the Committee on Postgraduate Instruction in Surgical Diagnosis.

REPORT OF THE COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee read the report of the Committee on Postgraduate Instruction in Surgical Diagnosis.

The House of Delegates of the Tennessee State Medical Association:

The Committee on Postgraduate Instruction in Internal Medicine met in Nashville, Tennessee, on June 21, 1942, and decided to conduct a course in postgraduate instruction in surgical diagnosis during the years 1943 and 1944. Dr. J. L. McGehee, Memphis, was elected chairman of the committee to conduct this course and was directed to procure an instructor for the course.

On November 29, 1942, the Committee on Postgraduate Instruction in Surgical Diagnosis met in Nashville. The program for the years 1943 and 1944 was launched. From the seven applicants for the position of instructor, four were interviewed in Nashville, and from this number Dr. J. R. Bromwell Branch of Macon, Georgia, was selected by the committee as instructor for this course. At this meeting a subcommittee was appointed to arrange the outline for the course of instruction to be given. The following were appointed to serve on this committee: Dr. J. L. McGehee, chairman; Dr. O. W. Hyman; Dr. W. L. Williamson; Dr. J. R. B. Branch, instructor; Mr. L. W. Kibler, field director.

The subcommittee met in Memphis on December 13, 1942. All members were present. The committee voted to retain the same centers for instruction as had been used in previous courses. At this meeting the committee reviewed a letter from Miss Barbara Quinn, assistant director, The Commonwealth Fund, expressing pleasure at the qualifications of Dr. Branch and wishing success to the course in surgical diagnosis. This committee also reviewed and approved the outline of instruction, copies of which were sent to each member of the Committee on Surgical Diagnosis. Mr. Kibler was directed to instruct the secretary, Mrs. Hopkins, to send copies of the proposed lectures by Dr. Branch to members of the committee in the shortest possible time. This was complied with by Mrs. Hopkins.

On January 30, 1943, the central office of the committee was moved from Nashville to Memphis and domiciled in the University Center of the University of Tennessee College of Medicine. Through agreement with the university there is no rent charged by them to the committee.

The course in surgical diagnosis opened in Circuit No. 1 on February 8, 1943, at Jackson. The centers included in this circuit are Selmer, Brownsville, Bolivar, and Jackson. This circuit will be completed on April 16, 1943. It will be noted that Covington, previously a center, was dropped from the centers of Circuit No. 1. This was due to the fact that of the four physicians remaining in Covington, three of them indicated by letter that they were not interested in the course. There was substituted for this center a group of Negro physicians which meet in Jackson.

A comparison of the number of matriculates and the attendance percentage of the course in internal medicine in 1942 and the course in surgical diagnosis in 1943 in Circuit No. 1 is as follows:

In 1942 there were eighty-three matriculates in Internal medicine in Circuit No. 1 with an average attendance of eighty per cent.

In 1943 there are seventy-eight matriculates in surgical diagnosis in the same circuit with an average attendance of 79.8 per cent.

When you consider the number of physicians who have left their homes and are now in the armed services, this shows a high degree of interest on the part of the remaining physicians in these communities. The attendance percentage in the various centers in this circuit are of interest.

In surgical diagnosis:

Selmer	83%
Brownsville	92%
Bolivar	83%
Jackson (white)	47%
Jackson (colored)	94%

Circuit No. 2 is to open in Columbia, Tennessee, on Monday, April 19,.1943.

The committee has received numerous voluntary congratulatory and commendatory letters from physicians taking this course. They express enthusiasm and appreciation both of the subject matter of the course and of Dr. Branch, the instructor. The consensus of opinion of those taking the course seems to be that it is very valuable and will fill a great need. The committee has not received a single adverse criticism of the course or of the instructor.

An abstract of the lectures on surgical diagnosis is herewith submitted as a part of this report.

A financial statement as of April 7, 1943, is also herewith submitted as a part of this report.

Financial Statement for Month Ending March 31, 1943

RECEIPTS

	Contributions	*Tuition*	*Lec. Bks.*	*Misel.*	*Total*
Bal. Forward	$29,000.00	$10,278.50	$7.71	$515.00	$39,801.21
	3,125.00	655.50	1.00		3,781.50
Total	$32,125.00	$10,934.00	$8.71	$515.00	$43,582.71

DISBURSEMENTS

	Salary and Travel	*Office Expense*	*Fee Refunds Cancellations*	*Total*
Bal. Forward	$29,521.10	$3,024.32	$ 660.00	$33,205.42
	3,244.62	230.22	4,724.35	8,199.19
Total	$32,765.72	$3,254.54	$5,384.35	$41,404.61

Total Receipts	$43,582.71
Total Disbursements	41,404.61
Total on Books	$ 2,178.10
Plus Check to Cover Overdraft	317.50
	$ 2,495.60
Less: Check to Hermitage Printing Co.	31.50
	$ 2,464.10
Less: Reimbursement to Dr. E. L. Baker	10.00
	$ 2,454.10

Respectfully submitted,

JOHN LUCIUS McGEHEE, M.D.,
Chairman.

Memphis, Tennessee, April 8, 1943.

DR. McGEHEE: Mr. Speaker, may I take this opportunity at this time to suggest that the House of Delegates pass a resolution expressing thanks and appreciation to the contributing agents as has been customary in the past? I think it is very fitting that at this time there be expressed to the Commonwealth Fund and the other contributing agents our appreciation of their contributions.

THE SECRETARY: Mr. Chairman, I move that the chairman of the committee be authorized to write such a letter on behalf of the Association.

The motion was regularly seconded, put to a vote, and carried.

REPORT OF THE COMMITTEE ON PHYSICAL THERAPY

THE SPEAKER: Committee on Physical Therapy.

Dr. J. J. Ashby, chairman, read the report of the Committee on Physical Therapy.

The report last year was concerned with the number of physical therapy technicians then in the state and the qualifications of these. At that time there was no chapter of the American Physical Therapy Association in Tennessee. A chapter was established at an organization meeting in Nashville in September of 1942. This chapter has five members. Miss Mildred Heap of Nashville was made president; Miss Gladys Stone of Nashville, secretary and treasurer; Miss Helen Thorp of Chattanooga, vice-president. Miss Cecil Culbertson of Knoxville and Mrs. Elizabeth Thompson, formerly of Nashville and now in Boston, Massachusetts, were the other two members. These physical therapy technicians are well trained and have met the American Physical Therapy Association requirements. The four members who remain in the state are connected with the Tennessee Crippled Children's Service and are paid a part or all of their salary by the Crippled Children's Service. Miss Heap works at the Vanderbilt Hospital and Mrs. Stone in the clinic at the Junior League Home for Crippled Children in Nashville. Miss Thorp works at the Chattanooga Children's Hospital and Miss Culbertson at the Knox County Crippled Children's Hospital. We have been informed that there are at the present time five physical therapy technicians at Camp Forrest and one at Camp Campbell, who are eligible to be members of the Tennessee Chapter of the American Physical Therapy Association, but who have not yet become members, probably, it seems, because of the fact that they are not sure that they will remain in the state long.

The American Physical Therapy Association was formed under the auspices of the American Medical Association. We feel that the formation of a Tennessee chapter of this association, although the membership is small, is of interest to the Tennessee State Medical Association and that it may have a significant bearing on the status of physical therapy in the state; therefore, we report it here.

Respectfully submitted,

J. J. ASHBY, M.D., Chairman,
Committee on Physical Therapy.

THE SPEAKER: These last two reports are referred to the Committee on Reports of Committees.

REPORT OF THE COMMITTEE ON INDUSTRIAL HYGIENE

Committee on Industrial Hygiene. Is Dr. Newell here? Has anybody the report?

The report of the Committee on Industrial Hygiene was submitted to the Secretary after adjournment of the House.

Gentlemen:

The Committee on Industrial Hygiene regrets its loss, but is proud of the fact that one of its members is in the armed forces. This member is Dr. Elkin Lanier Rippy of Nashville, Tennessee, who is now serving as an officer in the Medical Corps of the United States Army.

The committee has held but one regular meeting since the last report. Its members, however, have been in frequent contact with each other through correspondence.

Dr. A. R. McMahan officially represented the Tennessee State Medical Association through this committee at the American Medical Association's Fifth Annual Congress on Industrial Health, which was held this year as usual in Chicago. The American Medical Association again requests us to have representation at the next meeting of the Congress. What are your wishes regarding this?

It is unfortunate that in these rapidly progressing industrial times one of our best mediums for promoting industrial health information—namely, the Tennessee State Medical Association's meeting has been discontinued for the duration. We now have, however, subcommittees on industrial health in all of the industrial sections of the state, and with these and the help of our roster of industrial physicians, we hope to carry on and be of more service.

I am glad to be able to report to you that, in spite of the frequent criticism and condemnations heard in the press and by word of mouth regarding spots throughout the country where there are inadequate medical facilities, particularly around mushrooming industrial sites in the smaller localities, our committee has not heard either officially or by rumor of any such actual lack in our state.

Respectfully submitted,

CECIL E. NEWELL, M.D., Chairman.
C. F. N. SCHRAM, M.D.
A. R. McMAHAN, M.D.
E. L. RIPPY, M.D. (in armed forces).

April 11, 1943.

REPORT OF THE COMMITTEE ON FRACTURES

THE SPEAKER: Committee on Fractures, Dr. Duncan Eve, Jr.

Dr. Duncan Eve, Jr., chairman of the Committee on Fractures, read the committee's report.

To the House of Delegates:

It has been impossible for the Committee on Fractures to have a meeting this year. Therefore, your chairman will submit a brief report.

First Aid and Transportation of Fractures

For several years our committee has advocated the general use of improved methods of first aid and transportation of fracture cases, a field that is now engaging the attention of the American Red Cross Society and the Safety Promotion Departments of the Motor Vehicle Bureaus in some of our states.

It is suggested for the future that every school bus, when in service, be accompanied by a person who has had practical knowledge of first aid. It is further suggested that each county society have a fracture program once a year, and that all organized hospital staffs have a program once a year conducted by men particularly interested in fractures.

DUNCAN EVE, M.D., Chairman,
Committee on Fractures.

April 10, 1943.

THE SPEAKER: Referred to the Committee on Reports of Committees.

REPORT OF ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

THE SECRETARY: Mr. Speaker, the committee chairman said he would not be present and asked me to file his report, so I will refer it to the Committee on Reports of Committees.

The report of the Advisory Committee to the Woman's Auxiliary, Dr. Jesse C. Hill, chairman, was referred to the Committee on Reports of Committees.

Dr. H. H. Shoulders,
Secretary, Tennessee State Medical Association,
Nashville, Tennessee.

Dear Doctor Shoulders:

The State Committee of the Medical Auxiliary begs to make the following report.

1. Because of the war situation many progressive plans of the State Auxiliary have been changed, but considering said situation they have done a commendable work.

2. Because of a shortage of doctors' wives, due to doctors leaving for the service and taking their wives with them, those left have taken on heavier work to keep the worth-while organization alive and doing good work.

3. The three main purposes this year has been: (a) to uphold organized medicine before the public; (b) to stimulate public health laity problems; (c) create among its members a better knowledge of medical ethics.

4. Like many of the other auxiliary organizations, they are always ready and doing home war work. Many have distinguished themselves working for the Red Cross.

5. The committee in conclusion thanks God for their untiresome help and devotion to their husbands, who are overworked and deprived of social activities.

Sincerely,

JESSE C. HILL, M.D., Chairman,
Medical Advisory Committee.

April 7, 1943.

THE SPEAKER: At this time I am going to take the liberty of giving our beloved President a few minutes to talk to us—not over five minutes. (Applause.)

PRESIDENT'S MESSAGE

THE PRESIDENT (DR. J. B. STANFORD): Mr. Speaker and Gentlemen, I think I can tell all I know in less than five minutes.

Some months ago I began the preparation of a speech to make before this body, but when we decided to have an abbreviated meeting I thought I would save your time and your patience by not making a speech. However, since I am on my feet I want to thank you first, and your component societies, for the honor you have done me in electing me President, and also I want to thank the headquarters office and all the committees and all the individual members of the Tennessee State Medical Association for the valuable, active, and enthusiastic assistance that has been given me in the conduct of the society's business in this year. Not one member have I called on for help who did not give it to me with energy and enthusiasm.

As you know, the big job we had to do this year was the passage of the Basic Science Bill, and you have had a report on that. We are not proud of it, but it was the best we could do at a great deal of trouble and some expense. I think we owe particular thanks to the Legislative Committee for the work that they did on this.

This society as individuals and as a group and as supporters of the National Physicians' Committee should not forget that the do-gooders and bleeding hearts are still after our scalps. They may not be saying very much, but they are actively engaged, and we should be more active in protecting the practice of medicine as it now stands.

I want to thank you again for the honor you have done me. (Applause.)

THE SPEAKER: I wish to say that a great many of us felt that Dr. Stanford should be continued for the ensuing year on account of the unfortunate conditions arising and causing us to cancel the meeting, but at his own personal request he wanted the regular President-elect elected at this meeting. Except for that, I am sure Dr. Stanford would have continued until he could have presided.

THE PRESIDENT: Mr. Speaker, the presidency of this society is not only a great honor, it is an arduous duty. We have a great many able and competent men whose services we need in this society, and I see no reason why it should be held by one man for more than one year. This emergency may last for three or four or five years—we have no idea how long it will last—and I am sure that there are able men in East Tennessee who should serve this society as President-elect this year and as President next year.

DR. HIRAM LAWS: Mr. Speaker, some of these committees did not report, and I move you that the Secretary secure reports from those that did not report and publish them in the JOURNAL.

The motion was seconded by Dr. Everett and carried.

THE SPEAKER: The Councilors will please file their reports with the Secretary at this time.

COUNCILORS' REPORTS

THE SECRETARY: On behalf of the Councilors I want to say that here is a report from Dr. Miller of Knoxville, a venerable member of this organization, who expressed his regret at not being able to be present. I took occasion to bring his report as chairman of the council to the meeting, and I will file it.

THE SPEAKER: Will the other Councilors please come up and file their reports here if they have them with them; if not, mail them in.

Since the by-laws have been changed we do not have the reports of the Councilors given at this meeting; we just file them and publish them in the JOURNAL.

COUNTY and DISTRICT	*Members in County*	*Physicians in County*	*Eligible Nonmembers*	*New Members*	*Died During 1942*	*Dropped*	*Society Meetings*	*Average Attendance*	*Papers Read*
FIRST DISTRICT—									
Greene	16	18	3	1	0	0	11	9.16	15
Sevier	8	12	4	0	0	1	4	4	4
Sullivan-Johnson	28	61	33	2	1	0	10	20	10
Washington-Carter-Unicoi	45	68	8	1	2	5	10	25	16
SECOND DISTRICT—									
Anderson-Campbell	26	29	7	0	0	0	16	8	16
Blount	22	26	3	1	2	0	50	16	40
Hamblen	10	10	0	2	0	2	11	7	9
Knox	170	135	8	9	5	0	34	43	33
Loudon	6	7	0	1	0	1	12	80%	5
Roane	11	14	3	0	0	0	4	6	0
Scott	6	6	0	0	0	0	0	0	0
THIRD DISTRICT—									
Bledsoe (no society)		2	1	0	0	0	0	0	0
Bradley	12	12	0	0	0	0	0	0	0
Franklin	10	13	3	1	0	2	7	8	0
Grundy	4	4	0	0	0	0	1	3	0
Hamilton	162	230	15	11	1	1	36	35	44
Meigs (no society)	0	3	1	0	0	0	0	0	0
Marion (no society)	0	6	4	0	0	0	0	0	0
Monroe	14	15	1	1	0	0	12	8	18
McMinn	14	10	2	1	2	0	8	9	8
Polk	5	7	1	0	0	0	2	3	0
Sequatchie (no society)		2	2	0	0	0	0	0	0
Van Buren (no society)		0	0	0	0	0	0	0	0
Warren (no society)		12	7	0	0	0	0	0	0
White	10	11	1	0	0	0	1	8	0
FOURTH DISTRICT—									
Putnam	15	0	0	0	0	0	12	0	12
Overton	8	0	0	0	0	0	3	0	0
Macon	1	0	0	0	0	0	0	0	0
Cumberland	9	0	0	0	0	0	4	0	4
Smith	10	0	0	0	0	0	12	0	12
FIFTH DISTRICT—									
Bedford	13	9	3	2	1	0	12	7	12
Lincoln	9	14	4	0	1	5	2	7	4
Rutherford	20	16	4	2	3	0	11	11	11
SEVENTH DISTRICT—									
Giles	13	12	0	0	1	0	12	9	12
Hardin-Lawrence-Lewis-Perry-Wayne	16	28	10	1	2	4	11	10	33
Humphreys	2	6	4	0	0	0	0	0	0
Maury	17	18	1	0	1	1	0	0	0
Williamson	12	12	3	0	0	0	8	8.4	6

EIGHTH DISTRICT—									
Carroll	15	13	0	1	0	0	4	10	8
Fayette-Hardeman	19	26	4	1	0	0	11	75%	20
Henry	10	16	6	1	0	0	3	5	1
Madison	62	29	0	5	3	1	10	25	14
TENTH DISTRICT—									
Shelby	384	420	20	8	6	2	20	50	40

REPORT FOR SECOND DISTRICT

House of Delegates, Tennessee State Medical Association, Nashville, Tennessee.

Gentlemen:

I wish to submit my report as follows:

Organized, eight; unorganized, two; members, 147.

Two counties have too few doctors to form and maintain a society. Two organized societies are not functioning much.

The more populous counties have furnished their quota to the armed service. Tennessee has furnished seventy-three per cent more than her quota, as per office of war information. Practically all other physicians are needed for civilian service.

Deaths reported, eight; new members reported, thirteen; old members dropped, three, making a net gain of two members.

There has been practically no net change in the Second Councilor District during the year.

Effort is still being made to induce those in unorganized counties to join in other counties.

Yours truly,

S. R. MILLER, M.D., Councilor.

ANNUAL REPORT TO THE HOUSE OF DELEGATES FROM THE THIRD DISTRICT

There have been no changes in the Third District during the year 1942. The attempt to combine Franklin and Grundy Counties with Coffee, Moore, and Lincoln Counties has not been renewed during 1942 owing to the present stress of the war. It is hoped that this move can be consummated after conditions have become stabilized.

Appended hereto in tabulated form are the statistical data from the Third District, also lists of physicians from this district who are now in the armed forces.

Respectfully submitted,

A. M. PATTERSON, M.D.,
Councilor, Third District.

REPORT OF TUBERCULOSIS COMMITTEE

Has the Tuberculosis Committee any report to make?

DR. J. S. FREEMAN (Robertson County): I saw Dr. Rude last night, and he said there had been no activity and there was no report to make.

REPORT OF THE LIAISON COMMITTEE

THE SPEAKER: Has the Liaison Committee any report to make? (No response.)

REPORT OF THE INSURANCE COMMITTEE

Has the Insurance Committee a report?

DR. HIRAM LAWS: Dr. A. F. Cooper is chairman of the Insurance Committee. He sent his report and asked me to read it.

Dr. Laws read the report of the Insurance Committee.

The experience of the State Association during the past year with the two companies carrying our accident and illness coverage, the National Casualty and the Commercial Casualty, has been entirely satisfactory. If dissatisfaction over the settlement of any claim has arisen, it has not come to the attention of the committee.

The National Casualty Company now has eighty members insured. From April 1, 1942, to March 24, 1943, it paid sixteen (16) claims in the amount of $4,448.13, an average of $278.00 per claim.

The Commercial Casualty Company has 417 members covered. From June 1, 1942, to April 1, 1943, it paid $8,064.82 to twenty-five (25) members and three claims are now pending, the claims paid averaging $322.60.

Both companies extend full civilian coverage to insureds who enter the military service, which means coverage against loss or expense not due to the hazards of warfare.

The committee strongly advises our members to avail themselves of the opportunity offered them by these companies to protect themselves against loss of time from their duties either by illness or by accident.

KYLE G. COPENHAVER, M.D.
C. M. HAMILTON, M.D.
A. F. COOPER, M.D., Chairman.
Insurance Committee.

THE SPEAKER: Referred to the Committee on Reports of Committees.

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION

Report of the Committee on Medical Education, Dr. Frere, chairman.

Dr. J. Marsh Frere read the report of the Committee on Medical Education.

Mr. Chairman and Delegates:

Your Committee on Medical Education had a meeting during the annual meeting of our society in Memphis last year. The members of this committee agreed to continue to urge that the county societies in their sections have separate programs dealing with cancer, tuberculosis, syphilis, and other health matters.

In our section we have an active health council and the membership of our local medical society cooperates with them 100 per cent in presenting health education programs over the local radio stations and before interested groups of laymen.

Letters from the men on our committee show that they have been active in helping to make the course on postgraduate instruction in internal medicine a success in their respective sections.

Dr. J. Owsley Manier, chairman of the Committee on Postgraduate Instruction in Internal Medicine, reports that, despite the fact that many of the doctors of the state had joined the armed forces, the number taking the course in internal medicine compared more than favorably with the previous courses given.

I failed to hear from the other committees doing health educational work, but I am sure they will make a good report to the House of Delegates.

Respectfully submitted,

J. MARSH FRERE, M.D., Chattanooga, Chm.
J. M. LEE, M.D., Nashville.
W. C. CHANEY, M.D., Memphis.
R. B. WOOD, M.D., Knoxville.
H. B. GOTTEN, M.D., Memphis.
D. W. SMITH, M.D., Nashville.

THE SPEAKER: Referred to the Committee on Reports of Committees.

REPORT OF THE STATE HOSPITAL COMMITTEE

State Hospital Committee, Dr. Wood, Knoxville, chairman.

DR. E. G. WOOD: There has been no business referred to the State Hospital Committee; therefore, there has been no meeting. I am much interested, however, in what our Secretary, Dr. Shoulders, had to say about the appointing of a committee to study prepayment plans, and especially with reference to the Blue Cross plan, which I now understand has some eleven million subscribers. I heartily endorse what Dr. Shoulders suggested about that committee.

REPORT OF THE COMMITTEE ON MEMOIRS

THE SPEAKER: Committee on Memoirs.

THE SECRETARY: Mr. Speaker, it is regrettable that Dr. J. P. Gilbert, who was chairman of that committee, died during the year and that the Secretary asked Dr. Walker of Franklin to serve and make a report for them and the data was supplied to him, but I regret that he too is absent. He expected to be here. It can be published in the JOURNAL. He will make his report, I am sure. (Did not send a report.)

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

THE SPEAKER: Report of the Delegates to the American Medical Association.

DR. E. G. WOOD: Mr. Speaker, I submit to you, sir, the report that was written and sent in and was published in THE JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION (September, 1942, page 366).

THE SPEAKER: Referred to the Committee on Reports of Committees.

PRESIDENT-ELECT BRYAN'S ADDRESS

THE SECRETARY: Mr. Speaker, since the business of the meeting has moved forward with dispatch and I think we have some time, I move you that we hear what remarks our President-elect may have to make at this itme.

The motion was seconded and unanimously carried.

THE SPEAKER: Dr. Shoulders, will you conduct the gentleman to the rostrum?

THE SECREARY: I am pleased to present your President-elect, Dr. O. N. Bryan. (Applause.)

DR. O. N. BRYAN: Mr. Speaker and Members of the House of Delegates: Dr. Shoulders took me quite by surprise, as he often does, in calling on me to make a speech. I have no speech to make except that I appreciate the honor that is about to be conferred upon me. Personally, I rather regretted that they did not freeze the Association as it was and leave Dr. Stanford in as President until this critical situation is over. On the other hand, I can see his position; I can see that there are other members who should be elevated, war or no war, and go on and serve, because it is a privilege that only a few of us receive during our lifetime. Of course, I want to thank you very, very much for this privilege. (Applause.)

THE SPEAKER: Is there any new business? No new business can be introduced after we adjourn.

DR. A. R. PORTER, JR. (Shelby County): Mr. Speaker, at this time I want to bring before the House of Delegates the consideration of a hospital service prepayment plan. I should like to have the matter referred to the proper committee for study and report back to the society, especially with respect to the Blue Cross plan. Is there any special procedure to be gone through?

THE SECRETARY: Mr. Speaker, if the House sees fit to authorize and create a separate committee, I recommend it, and it seems that some, at least, have expressed approval of that. If the appointment of such committee is authorized and the Board of Trustees creates it, I think all the data and studies that anybody has made should be referred to that committee.

THE SPEAKER: Make the motion.

THE SECRETARY: Under the head of new business, then, I move that the Tennessee State Medical Association create a standing committee to be known as the Committee on Hospital and Medical Care Prepayment Plans, and that committee consider all the available information on the question and report to the House next year, and that the Board of Trustees appoint a committee of whatever number seems essential.

DR. PORTER: I second the motion.

DR. M. S. ROBERTS: The point I want to make, Mr. Speaker, is that this is a part of the Secretary-Editor's report and it seems to me that this question should come up following the report of the Committee on Reports of Officers.

THE SPEAKER: We are going to act on his motion and you can report on that.

DR. J. C. PENNINGTON (Davidson County): It strikes me that it might be best, if possible, to consider this thing in this meeting. It will give the committee at least something to work on, and they could report back at some other session at this meeting. Some of these places are going to do something about hospital plans before we meet next year.

THE SPEAKER: There is a tremendous amount of work to be reviewed; it is a tremendous job. I do not believe this committee could give us an intelligent report at this time. It would require some serious study.

DR. J. L. CROOK: You haven't voted on that motion yet.

THE SPEAKER: We are going to wait until the Resolutions Committee comes back with its report.

THE SECRETARY: That was in the form of a resolution.

DR. KYLE COPENHAVER (Knox County): It is my opinion from what has been said around here that considerable work already has been done on this hospital prepayment plan. Dr. Shoulders has evidently been thinking considerably about it, and Dr. Porter has been thinking considerably about it. I do not see why you cannot appoint a committee. As Dr. Pennington says, a lot of plans are going to be put into effect before we meet again another year. I think we ought to have a committee to guide us in what to do for the coming year.

THE SECRETARY: Mr. Speaker, in speaking to that point, there is no hospital plan in Tennessee operating under a state enabling act. They are all operated as local enterprises in cities, as, for instance, Memphis and Knoxville, and they are purely local. There was a bill in the form of an enabling act introduced in the Legislature of 1941, which did not pass. Is that right, Dr. Wood?

DR. E. G. WOOD: It did not pass.

THE SECRETARY: So it is possible that local hospitals may put on a plan over which the profession has no control and it would still remain within the jurisdiction of the local medical society, but as the question grows it will become a state matter. That was the thought I had in mind, that the state society should consider and be ready to give wise counsel and properly to sponsor legislation, if necessary, of a state-wide character in the form of an enabling act when it comes about.

DR. H. B. EVERETT: Mr. Speaker, I understand from our situation in Shelby County that there is quite a number of insurance companies proposing to sell reimbursement policies for hospitalization. Our hospitals down in Shelby, four in number, have been issuing their own policies. At the request of our society recently, I believe about two weeks ago, a committee is working to consolidate all their plans so they will be interchangeable under the Blue Cross plan, on which Dr. Porter has done considerable work, and he probably is more familiar with it than some of the rest of us. It seems that each hospital has had its own policy, and if at the time of a patient's becoming sick the doctor did not see fit to or could not get him in the hospital that he had his policy with, he was at considerable disadvantage in that respect, and they are now working on a plan to make these policies interchangeable so that each hospital may interchange policies with the others.

It is my understanding from the administrators of the hospitals that we have waited until the commercial insurance companies have got pretty well on the way to writing these policies, and they feel had this been attended to sometime ago it would not have been quite as hard for them now to gain back the number of policyholders that they would have had otherwise.

I rather think that in so far as hospitalization is concerned, the earlier you work out a plan the better, and if they propose to make this Blue Cross plan a state-wide plan, the earlier you get started on it the better off the hospitals will be in that way.

As I understand, the commercial policy is that they reimburse the patient for so much per day for hospitalization fees in the hospital. The hospitals themselves have been selling the service; that is, they put them in the hospital for so many weeks for a definite price, whereas the insurance companies reimburse the patient, but do not pay the hospital bill. Consequently, the hospitals are at somewhat of a disadvantage when the patient gets money for reimbursement and probably does not pay the hospital bill. For that reason they are rather anxious that something be done that they do not have too much delay.

DR. J. O. MANIER: Mr. Speaker, I think I understood what Dr. Shoulders has in mind. He was looking toward the broad perspective of future plans. This thought occurs to me. If this war continues, a year from now this body will have to meet again. If this body sees fit to appoint the committee suggested by Dr. Shoulders, then I think your resolution should go one step further and that that committee should not only be instructed to study this, but should be instructed to draw in advance a tentative plan which should be published in the JOURNAL in order that those who finally have to pass on the matter when they come back here, or wherever they meet next year, would be apprised of the details of that and could give study to it and be in a position to act much more intelligently if action is deemed necessary.

I think if we merely have a committee who come to a body like this for a short day's meeting, those who hear the report read will be confused and will not have had an opportunity to study the ins and outs. I think that should be part of your resolution because sooner or later we are going to be forced into the adoption of some plan, and we do not want to do that in any haphazard kind of way; we want to do the thing in a constructive way from all angles.

I should like, if it is in order, to amend your motion.

THE SECRETARY: I will accept the amendment if my second will agree.

THE SPEAKER: Did you say that the Board of Trustees should appoint this committee?

THE SECRETARY: The Board of Trustees appoints all committees not otherwise provided for.

THE SPEAKER: The Board of Trustees will not meet for a long time.

THE SECRETARY: It meets today.

THE SPEAKER: That is right.

DR. A. M. PATTERSON (Hamilton County): I think Dr. Manier has presented a very fundamental matter. This thing is up before us now and pressure is being made. There are a great many of the doctors who have been making a study of this, and I heartily concur with the resolution, that we should have this committee, but I think in the meantime if we could devote fifteen or twenty minutes to a round-table or an open discussion here, it would be of great benefit, because there are perhaps many men here who have been thinking about this and who might have some ideas for the general information of the assembly. We have three different propositions that are very confusing. One is the hospital plan that has been endorsed by the American Hospital Association, the so-called Blue Cross arrangement. There is the reimbursing plan carried by the insurance companies; they reimburse the man for his sickness and we have no jurisdiction over that. But there is a confusing element there, as Dr. Shoulders has drawn out, which is this mater of medical care, where they include in these plans the care of the patient by a doctor. That is fundamental and vital in our interests, and so long as these plans do not embrace medical care with hospitalization and reimbursement for sickness, I do not think it is a matter for us to mix up in, but it is very vital for us to keep that proposition of medical care separate and distinct and entirely out of the Blue Cross plan.

We have a good deal of pressure being brought to bear upon us in Chattanooga right now in the Blue Cross plan, and the medical society has been asked to endorse it. We have no authority to do so. We cannot endorse that any more than we can endorse any other insurance plan. That is up to the hospitals themselves. If they want to have that, so long as they do not encroach on the practice of medicine, we have nothing to do with it; but when they begin to include in their plans certain medical care and medical services, it is an entering wedge to the very thing we have been trying to guard against all the time. I think if we had a round table here for a few minutes it would clarify the atmosphere.

DR. J. MARSH FRERE (Hamilton County): Dr. Porter has made a thorough study of this and I move you that he give us a brief report of what his investigation shows for the benefit of the men here.

DR. J. L. CROOK: I second the motion.

THE SPEAKER: You have heard the motion. All in favor say "aye"; opposed. It carried.

DR. A. R. PORTER, JR. (Shelby County): The question is whether we are going to control that situation or whether the commercial insurance companies are going to control it. Whom do you want to control it, the doctors or the insurance companies? The Blue Cross plan is the only nonprofit plan that we can have a finger in the pie in controlling. The Blue Cross plan must originate with the hospitals at our request.

There is a plan that you are confusing with this, the Blue Shield plan of medical and surgical service, which must originate among the doctors, and the doctors can combine in a corporation and offer their services in competition with the commercial companies. Unless we do something of that sort and offer these two plans side by side, the commercial insurance companies are going to have control of the whole situation, and when they get control they are going to dictate the policies, and they will run our hospitals and run our business for us unless we do something and do it now. If we wait until next year and have a report of the committee and then work another year to get an enabling act, it will be too late, we will be out of the picture and have socialized medicine before we know it.

DR. T. R. RAY (Bedford County): Things are happening thick and fast these days and we do not know today what will happen tomorrow. It seems to me that this Association should be alert and be prepared to meet the situations as they arise. We are creating or proposing to create a new committee. It seems to be that there should be a great deal of care and caution taken in creating that committee, and that the proper men should serve on that committee.

I would suggest, in order to clarify the whole situation, that this committee work out such plan as they deem in their wisdom should be adopted by this House of Delegates, which will not meet again for twelve months, and that if any action should be required in the interim, that we empower, if that is proper, the Trustees of this Association to act for this House of Delegates.

The motion was seconded by Dr. J. L. Crook.

THE SPEAKER: That will be referred to the Committee on Resolutions and they will report back immediately after we reconvene.

Is there any other discussion?

DR. JOHN STEELE: We have this thing in Chattanooga and it is red hot right now. I am on a committee of the Chamber of Commerce considering it. A fellow sprang this Blue Cross thing on us the other day. He brought in a stack of stuff a foot high which I can turn over to Dr. Porter if he wants it. He is a wealthy man there at home, always doing a lot of charity, and he thinks it is a good thing for the public. At the meeting that day, which lasted a couple of hours, I tried to kid them away from it until they got a chance to breathe and see whether the doctors wanted it or not, and I killed it for a while on the theory that they were going in competition with these people paying taxes, and so forth, and I got it killed when I pointed out the Metropolitan, Provident Life, and a good many good companies write hospital insurance right now. I think the thing

we want to do today, and throughout the year and years to come, is to kill this proposition of a plan which includes medical services of any kind. I am really honest in telling you that I think the hospital plan, just to pay the man's hospital bill, is a darned good thing for the profession. All of you know how many people you have had as patients who, when they paid their hospital bill, had nothing left for the doctor. If you got a plan where the hospital bill was paid, the doctor would get something; he ought to; and there is no excuse for the patient not paying him. I say let us fight this one thing that Dr. Shoulders brought out very beautifully in his report, the question of medical service. Let us go on record that there is no objection to the Blue Cross plan, but a strong objection to anything that resembles medical service. If you do that, you can do it today, right now—and keep fighting, do not stop today. You can kill this thing in Chattanooga as far as medical service goes, but we cannot kill the Blue Cross, and I do not think we ought to. I think it is a darned good thing, from what I read about it, and I have read a lot about it. The whole thing is the board of governors and the management, but we do not have a thing to do with that. We have a lot to do with the medical service proposition, and we can kill that. I say, like Dr. Patterson, stay away from the hospital end of it. That does not interest us. I believe if a man can pay his hospital bill the doctor will get something. Let us fight the medical service end of it and stay off the hospital end.

DR. E. G. KELLY (Shelby County): I think we are a bit confused about these two plans. The gentleman from Chattanooga has clarified it for us quite a bit. I think this body has nothing to do with the hospital plan other than to say they disapprove it or approve it. That is a plan to be run by the hospitals. In Shelby County the hospitals met with us and said: "If you want this, we will put it in; if you do not want it, we will not put it in." I cannot see why anybody would object to a plan whereby a patient with a hospitalization policy could go to any hospital he wanted to. I do not think anybody would object to it. I would be the first to oppose any plan that incorporated in it medical care, but I do not see how we can oppose a plan that simply provides that a hospital, whether it be Baptist, Methodist, St. Joseph's, or any of your hospitals, can hospitalize a man and he can have his hospital bill paid. If a man has hospitalization for one specific hospital and he wants to go to some other hospital, he has to pay his hospital bill over there, or if you do part of your work in one hospital and the patient has hospitalization in some other hospital, in order to save him his hospitalization he can go over there and you can do the work.

The Blue Cross plan should provide for reciprocal hospitalization.

As far as I can understand, this body has nothing to do except to approve a hospital plan.

DR. J. L. CROOK: As a victim of private hospital ownership over a long period of years, I regret very much that I havn't got my hospital now. If we had had the Blue Cross plan a good many years ago, I wouldn't be as poor as Job's turkey, as I am today. Many times the owners of private hospitals in the past, especially in towns that have no city hospitals, have gone to the extent of taking a poor fellow in from the street and cutting off his leg and by that act of charity imposing upon the hospital ownership the burden of paying his board and nursing him and getting him out. In other words, we have been in the position for years of paying out money for the privilege of working for nothing. So I say I think these two hospital plans should be not only approved of, but I think they should be definitely approved of in such a way that we can today, without further ado, say through this official body that the Tennessee State Medical Association thoroughly and wholeheartedly approves and endorses the plan now in existence for letting hospitals make these plans for having these bills paid without any reference whatever to the services rendered. I think we can do that today without violating any constitutional provisions. We can at least do that.

DR. C. E. NEWELL: I just wonder how many vacancies there are in the hospitals in Tennessee today. If you adopt this Blue Cross plan or any other plan, as Dr. Crook has suggested, right away and go into the plan and the hospitals in the various towns and cities in Tennessee adopt a plan, you are going to get a lot of people in hospitals to get their money's worth, staying their twenty-one days, or whatever the number of days is, and they are going to shove people out who ought to be in those hospitals with acute appendices, gall bladders, and so forth. You cannot increase bed capacities of hospitals by priorities or anything else. We are going to need, and we need right away for the men injured overseas, all the beds that are available, and they are going to take quite a number of clubs and other places of that kind and turn them into hospitals.

I think that this Blue Cross proposition and several of the others that I have investigated are very good things, but I do not think that we should have anything in this motion that would indicate that it is mandatory on the hospitals of this state to accept any Blue Cross proposition or any other proposition. That should be left entirely to the individual community. I think it would be a very, very bad policy for any of these associations to organize in different towns and localities at this time, because we simply haven't got the bed capacity to take care of the people who are sick now. Why go into anything other than to indicate you are in favor of it? That is all right, we are in favor of it. When the war is over and the slump comes and the hospitals are depleted, there will be plenty of room, but not now. I think we ought to be very careful about endorsing a plan at the

present time, under the present situation, when we have no bed capacity.

THE SECRETARY: Mr. Speaker, I hesitate to speak again on the situation, except to say this. Within the last year, the Board of Trustees of the American Hospital Association, at the request of the Board of Trustees of the American Medical Association, met with them and at that time there was confusion even with reference to local plans and the medical services included in the hospital plan under the Blue Cross—for example, X-ray, laboratory, etc. There is a strong disposition on the part of a few hospital superintendents, some of them in high places, to take a step further and embrace a considerable amount of medical care in their hospital plans because it makes them more salable; it helps them to sell them. That is one point.

Next, a patient has limitations locally. The patient wants a certain hospital, we will say, with a closed staff. That closed staff situation defeats the man whom the patient wants. You see that complication right off. I think it is evident that if we have a good, strong, well-distributed committee on the question to give it thorough consideration and write up a report that you can sit down and read at night (and make the report as soon as it can—I accepted Dr. Manier's motion), the local committees throughout the state will have something at least to guide them, and that committee can act in an advisory capacity, I think, Dr. Manier, don't you?

DR. J. O. MANIER: Yes.

THE SECRETARY: I think it is urgently necessary that it be handled in that way. I believe it is going a little far to adopt the Blue Cross plan when several different local plans are in operation under the name of Blue Cross. It is not just one plan. There is a Blue Cross plan that is approved by the national body, but there are variations of the plan in several different local communities with reference to the contracts sold under it.

DR. FRERE: The American Medical Association does not endorse this plan.

THE SECRETARY: It has not taken action on it. It has not endorsed it at all. I think it is a question for study.

THE PRESIDENT (DR. J. B. STANFORD): Mr. Speaker, Dr. Newell spoke about the owners of a Blue Cross contract or any other contract filling the hospitals when they are not really sick. That is our fault if that happens. When a patient is sick and his doctors discharges him, that patient is a trespasser if he stays in the room any longer. It is up to the doctor to get rid of the patients who are well rather than let them stay and use up their three weeks or two weeks, or whatever time is called for. I think his point is not very well taken in that regard.

DR. PENNINGTON: It was not my idea to settle this thing at this meeting by any means, but what I was driving at was to get somebody to tell us something about some plans, all the plans they know about. So far as I know, Dr. Porter has made more of a study of the subject than any man around here, and I think it would be a good idea, if it is agreeable, to let him tell us what his ideas are and we can take them home with us and think about them.

THE SPEAKER: Is there any other discussion? Is there any other new business? It is your last chance. If not, this motion is referred to the Resolutions Committee and they will report back this afternoon.

THE SECRETARY: I wish to announce to the House that Dr. James Paullin, president-elect of the American Medical Association, will be here this afternoon for the purpose of addressing the House on questions of deep concern to you and to the American Medical Association, of which we are an integral part. I would like to have an expression, Mr. Speaker, as to when you would like to hear him so I may notify him. Would you like to hear him as the first order of business this afternoon?

THE SPEAKER: We will hear Dr. Paullin as the first order of business, and we will adjourn until two o'clock, if that is the consensus of opinion. (Agreement.)

The meeting recessed at 12:15 P.M.

SUNDAY AFTERNOON SESSION

The House of Delegates reconvened at 2:15 P.M., the Speaker, Dr. E. R. Zemp, presiding.

THE SPEAKER: The meeting will come to order.

We will first take up the report of the Nominating Committee.

DR. A. R. PORTER, JR.: We may have to change the by-laws a little bit temporarily for this meeting.

THE SPEAKER: The by-laws have already been suspended.

DR. PORTER: The following is the report of the Nominating Committee:

President-elect.

Dr. Kyle Copenhaver, Knoxville. (Applause.)

A motion was regularly made, seconded, and unanimously carried that the nominations be closed.

THE SPEAKER: I will entertain a motion that he be elected by acclamation.

DR. H. B. EVERETT: I make such a motion that Dr. Copenhaver be elected by acclamation.

The motion was seconded by Dr. L. W. Edwards and carried unanimously.

THE SPEAKER: The Secretary will cast the vote of the society.

THE ASSISTANT SECRETARY (Dr. W. M. Hardy): I cast the vote for Dr. Kyle Copenhaver of Knoxville for President-elect of the Tennessee State Medical Association.

DR. PORTER: Vice-Presidents.

East Tennessee—Dr. J. C. Brooks, Chattanooga.

THE SPEAKER: Are there any other nominations?

DR. WILLIAM BURNS: I move the nominations be closed.

The motion was seconded and carried.

THE SPEAKER: I think if there are no objections we will proceed.

DR. PORTER: Middle Tennessee—Dr. Burnett Wright, Nashville.

THE SPEAKER: All in favor of electing Dr. Burnett Wright say "aye"; opposed. Carried.

DR. PORTER: West Tennessee—Dr. J. W. Oursler, Humbolt.

THE SPEAKER: All in favor of the election say "aye"; opposed. Carried.

DR. PORTER: Trustees.

Dr. C. M. Hamilton, Nashville, is renominated for a three-year term.

THE SPEAKER: All in favor say "aye"; opposed "no." Dr. Hamilton is elected.

DR. PORTER: Chattanooga has lost a trustee. Dr. Bogart is in the Army. His term expires in 1944. The Nominating Committee nominates Dr. B. L. Jacobs to fill his unexpired term.

THE SPEAKER: All in favor say "aye" if there is no objection from the Chattanooga delegates; opposed "no." Carried.

DR. PORTER: Secretary-Editor, Dr. H. H. Shoulders; Assistant Secretary-Editor, Dr. W. M. Hardy.

THE SPEAKER: All in favor say "aye"; opposed "no." They are elected.

DR. PORTER: Speaker of the House of Delegates, Dr. E. R. Zemp.

ASSISTANT SECRETARY: All in favor of the nomination say "aye"; opposed "no." Dr. Zemp unanimously elected.

DR. PORTER: Public Health Committee. There are three recommended from each district.

East Tennessee—

Dr. R. B. Wood, Knoxville.
Dr. Lee Gibson, Johnson City.
Dr. A. M. Patterson, Chattanooga.

DR. WILLIAM BURNS: I move they all be elected.

The motion was regularly seconded and unanimously carried.

DR. PORTER:

Middle Tennessee—

Dr. T. R. Ray, Shelbyville.
Dr. J. U. Speer, Pulaski.
Dr. William Kennon, Nashville.

THE SPEAKER: If any of you know any better men than these for local reasons, state your preferences. If there are no objections, all in favor of the election of these gentlemen say "aye"; opposed. They are elected.

DR. PORTER:

West Tennessee—

Dr. R. L. Cobb, Bolivar.
Dr. Swan Burrus, Jackson.
Dr. Arthur Porter, Memphis.

THE SPEAKER: All in favor say "aye"; opposed. They are elected.

DR. PORTER: Board of Nurses' Examiners—

Dr. Ralph Monger, Knoxville, renominated.
Dr. Harry D. Miller, Johnson City.
Dr. John S. Freeman, Springfield.
Dr. E. G. Kelly, Memphis.
Dr. W. T. Fitts, Jackson.

THE SPEAKER: All in favor say "aye"; opposed. They are elected.

DR. PORTER: Delegates to the American Medical Association. One delegate's term expired, that is West Tennessee, Dr. H. B. Everett, who is renominated, and Dr. E. C. Ellett as alternate.

THE SPEAKER: Objections? All in favor say "aye"; opposed. They are elected.

DR. PORTER: Councilors.

Second District—Dr. S. R. Miller, Knoxville.

THE SPEAKER: All in favor of the election say "aye"; opposed. He is elected.

DR. PORTER: Fourth District—Dr. J. T. Moore, Algood.

THE SPEAKER: All in favor of his election say "aye"; opposed. He is elected.

DR. PORTER: Sixth District—Dr. H. S. Shoulders, Nashville.

THE SPEAKER: All in favor say "aye"; opposed. He is elected.

DR. PORTER: Eighth District—Dr. Jere L. Crook, Jackson.

THE SPEAKER: All in favor say "aye"; opposed. He is elected.

DR. PORTER: Tenth District—Dr. W. B. Burns, Memphis.

THE SPEAKER: All in favor say "aye"; opposed. He is elected.

We will hear the reports of the Reference Committees. Committee on Credentials.

REPORT OF CREDENTIALS COMMITTEE

DR. RALPH MONGER: The Credentials Committee wishes to concur with the action of the House this morning when they voted to seat everyone here as a delegate.

COMMITTEE ON REPORTS OF OFFICERS

THE SPEAKER: Committee on Reports of Officers. Dr. M. S. Roberts.

DR. M. S. ROBERTS: We have the report of the Treasurer, which is the report of the auditors, and I move the adoption of this report.

The motion was seconded by Dr. William Burns and carried.

DR. ROBERTS: The report of the activities of the Trustees, which consists of actions of the Trustees during the year, has been read in your presence, and I move its adoption.

The motion was regularly seconded and carried.

DR. ROBERTS: The report of the Secretary-Editor contained only the one recommendation, which was so freely discussed in the session before noon, and the committee approves the appointment of the committee suggested. I move the adoption of this report.

The motion was seconded by Dr. William Burns.

THE SPEAKER: You understand that the Board of Trustees is authorized to appoint a committee to investigate the prepayment plan.

DR. ROBERTS: This is approval of the report containing the recommendation of the Secretary-Editor.

THE SPEAKER: Is there any discussion? All in favor say "aye"; opposed.

The motion was unanimously carried.

COMMITTEE ON REPORTS OF COMMITTEES

THE SPEAKER: We will next have the report of the Committee on Reports of Committees.

DR. W. C. CHANEY: Mr. Speaker, your committee has reviewed all of the reports of the committees and recommends to you their acceptance.

DR. WILLIAM BURNS: I second it.

THE SPEAKER: All in favor say "aye"; opposed "no."

The motion was carried.

THE SPEAKER: I would like to ask Dr. Chaney if the committee really read those reports.

DR. CHANEY: We really did talk them over and there were no controversial points.

THE SPEAKER: We had on the agenda an address by the retiring President, but he made his address this morning. We will hear an address from the new President, Dr. Bryan.

ADDRESS OF PRESIDENT

DR. O. N. BRYAN: Mr. Chairman and Members of the House of Delegates: It goes without saying that we all know we are in strenuous times. We are all having to do a lot of things we never thought we would have to do this late in life, but I want to state that I appreciate very, very much this honor that has been conferred upon me, and with your aid and assistance I will promise you to take this responsibility. I will not promise you to do as well as the others, but I will do the very best I can. Thank you. (Applause.)

ADDRESS OF PRESIDENT-ELECT

THE SPEAKER: We will next hear from our tobacco-chewin', cussin' President-elect, Kyle Copenhaver. (Applause.)

DR. KYLE COPENHAVER: You gentlemen can think of all the nice things that have been said by the various men in the past who have been elected President of the State Medical Association, and I say all those things, but I want to admonish each of you that the chain is no stronger than the weakest link, and we have all got something to do in the next few years that this society has never gone through with before. I want to assure you that I will do everything that I can, and I expect every individual member to do the same thing. I appreciate the election very much. (Applause.)

PRESENTATION OF GAVEL

THE SPEAKER: As is customary, we always present the retiring President with a gavel. We give you this gavel with an expression of appreciation not only of the House of Delegates, but of the whole Tennessee State Medical Association. (Applause.)

DR. J. B. STANFORD: Thank you very much, Mr. Speaker. I promise not to make a speech. I will only say that I accept this with pleasure and I thank you again for the honor you have given me. I will guard it and love it for life, as will my heirs and assigns afterwards. (Applause.)

THE SPEAKER: Dr. Stanford used to make the gavels.

DR. STANFORD: I couldn't have done as well, I assure you. Thank you very much again.

THE SPEAKER: Gentlemen, at this time we have with us a very distinguished gentleman, the President-elect of the American Medical Association, Dr. Paullin of Atlanta, and we will now hear from him. (Applause.)

ADDRESS OF DR. JAMES E. PAULLIN, PRESIDENT-ELECT OF THE AMERICAN MEDICAL ASSOCIATION, BEFORE THE HOUSE OF DELEGATES, TENNESSEE STATE MEDICAL ASSOCIATION, APRIL 11, 1943, NOEL HOTEL, NASHVILLE, TENNESSEE

DR. JAMES E. PAULLIN: Mr. Speaker and Members of the House of Delegates of the Tennessee State Medical Association: It is a great pleasure to have the honor of meeting with you and to bring you greetings from the American Medical Association. It has been my privilege to be associated with many of your members in the House of Delegates of the American Medical Association, and to observe the interest which they have shown in establishing policies and principles for the protection of the health of the citizens of the United States.

During the past several months I have visited various parts of this country. As a result of the World War in which we find ourselves engaged, the American Medical Association has been able to make a distinct contribution toward the mobilization and utilization of its members for an all-out war effort. The first step in such a program was the establishment of the Medical Preparedness Committee before war was declared. Through the effort of this committee sufficient data was accumulated which was available for the Surgeons General of the Army and Navy the moment it was necessary to begin the recruitment of physicians for the military service. The American Medical Association and American Medicine have been called upon to do many things to help in this war effort. Time

will permit only a brief sketch of some of these activities:

(1) Over thirty thousand physicians in the United States have willingly served in an effort to see that only healthy men were enlisted as soldiers in the Army or Navy. This was accomplished by physicians acting as members of local, appeal, and advisory boards for Selective Service. Physicians accepting this type of service have had to work under considerable pressure. Large numbers of selectees have had to be examined in a short space of time, thus allowing just enough of an examination to screen those obviously physically and mentally disqualified for duty from being sent to induction centers.

(2) Physicians have made a great contribution to the war effort by adopting an accelerated teaching program for our medical schools, with fewer teachers and longer hours, and no vacations. In spite of the fact that most of our medical colleges have been deprived of from twenty-five to forty per cent of their effective teaching staff, they are continuing to conduct good medical schools and are doing a fine job. The medical schools will now graduate approximately six thousand physicians every nine months instead of every twelve months.

(3) The National Research Council through its Committee on Medicine and its Committee on Surgery and its various consulting committees are utilizing the services of approximately three hundred fifty physicians from thirty-eight states and about forty medical schools who are considered experts in various fields of medical research and practice. The purposes of this council are to act in an advisory capacity, when requested, by the Surgeons General of the Army, the Navy, and the Public Health Service; to investigate medical problems arising in war, which are related to national defense and the health of the military forces. Many of these problems are concerned with the immediate needs and information must be accumulated quickly and rapidly to improve the efficiency of our troops.

(4) The Procurement and Assignment Service for Physicians, Dentists, and Veterinarians is an agency about which you already know a great deal. You are acquainted with many of the problems which have faced your state board and that will face it in the future. Very few physicians realize the sacrifice that has been made and that must be made in the coming months to supply the military needs of this nation. Through January 1, 1943, the Procurement and Assignment Service had supplied the military needs of the Army and Navy. In the beginning it was not possible to recruit physicians for military service on a just and equitable basis. I mean by this that throughout the whole Southland physicians have volunteered for military duty in greater proportion to the physician-population ratio than they have in most other parts of the country. As a result of this, during the remainder of 1943 the Southern States will supply only a few additional physicians to the Army or to the Navy, and these will be drawn from those areas in the states where the physician-population ratio is rather high. For example, in the State of Georgia we have a physician-population ratio at this time of approximately one doctor to every two thousand people. In the city of Atlanta we have a physician-population ratio of approximately one physician to every thousand people. This means, therefore, that the city of Atlanta, despite the fact that it supplies medical service for a very large metropolitan area and for a considerable number of citizens from other parts of the state, must give more of its physicians to the military forces, or some of the physicians who are now engaged in the practice of medicine in this area should be willing to relocate in other parts of the state where there is greater need of doctors. Problems such as this are by no means easy to solve. With the cooperation of the state chairmen of the Procurement and Assignment Service and the State Medical Societies, and other interested groups, it is hoped that the relocation of physicians in areas of distress can be brought about.

Besides supplying the military needs for the Army and Navy, and the Public Health Service for 1943, the Procurement and Assignment Service is also instructed to provide medical care for approximately one hundred twenty million civilians, representing the nonmilitary population of the United States. We have available approximately eighty thousand doctors—most of them over forty-five years of age—who must take care of this group of people as well as supplying the needs of industry and other governmental agencies. During this year there will be recruited for the military services approximately seven thousand interns and residents who have completed, or will complete, their one or more years of training which will qualify them for a commission in the Medical Corps of the Army or Navy. Only a limited number of these interns and residents can be used to replace doctors for civilian needs. When it is realized that most of the physicians who render medical care to civilians are over forty-five years of age, and that they are working harder and longer hours, with increasing work by day as well as by night, it will become apparent that the mortality in this group is going to steadily increase, which will mean that more physicians must be found to replace those lost from civilian ranks. This problem is a most serious one, and particularly is it true when we realize that most of the students who enter medical colleges now will be enrolled in either the Army or Navy, and upon completion of their education, after a year of internship, will be called to active duty in one of the military services. If twenty per cent of the students who are now in medical school are physically disqualified for military duty, this will supply only twelve hundred doctors each nine months to replace those lost from the civilian group.

Too much praise cannot be given those physicians who are now supplying medical care for the

civilian population. Numerous requests are frequently received for particular types of service from this group, such as supplying industry with physicians for their needs and to furnish doctors for large industrial centers which have suddenly arisen in communities where factories have been erected to supply materials necessary for the prosecution of the war. In these communities that have suddenly sprung up like a mushroom, we are faced not only with the problem of furnishing medical care, but also with problems of housing, water supply, sanitary engineering, and other public health measures. An attempt is being made to correct the deficiencies in these areas of distress as rapidly as possible and already the Procurement and Assignment Service has been successful in relocating approximately nine hundred physicians for this type of service. At the present time there exists, according to our best information, in the United States, only about one hundred twenty communities that are short of one or more doctors.

The distribution of physicians in various parts of the United States is a problem within itself, and one which must receive our earnest and careful consideration. In many rural communities, with which all of us are familiar, there is not available a sufficient number of physicians to take care of the medical needs of these people. There are isolated spots in which there is one physician to 2,500 to 4,000 people, whereas in larger towns and cities the physician-population ratio is much greater. It becomes necessary for us to begin to plan for the graduates of our medical schools, and to help rural communities to make available all facilities with which they can practice the type of medicine for which they have been trained, and that laboratory facilities and hospital beds for the care of patients are available in these communities.

The problem of the prepayment plan for medical and hospital service is a very acute one. Throughout the United States numerous plans have been considered and have been tried which permit the average citizen to voluntarily purchase insurance against catastrophic illness. When it is realized that approximately six to eight million people in the United States have purchased this type of protection on a voluntary basis, it can be seen that the medical profession must be in position to advise and help establish a program which can be utilized by various groups, in all communities, to provide for themselves hospital and medical care on a prepaid basis. Studies must be made to determine the best type of protection which will be suited to various communities. There are already several very successful plans in operation—the Massachusetts plan, the New York plan, and recently a plan which has been formulated by the California Medical Society. All of these have many points of merit, but there isn't one that can be adopted which will satisfy the needs and suit the people of every state in the Union. Each state must have its own well-thought-out plan of furnishing this type of service.

There are other problems which have arisen and will continue to arise which will demand the best thought and brains of the medical profession in seeking their solution. I feel that the profession at the present time occupies a strategic position, such as it has never occupied before in the history of this country; we have an opportunity of rendering a service to our country such as we have never had before, and it to be hoped that we can assume our obligation and carry forward not only our scientific achievements, but that we will deal with the important and necessary problems of medical care to our people by formulating some plan which will protect them from the political-minded and bureaucratic form of medical activities. To the 50,000 or more physicians who are now serving in the Medical Corps of the Army and Navy we owe a great responsibility. Those of us who are left on the home front must protect the ideals and purposes for which the medical profession has stood for these many years and we should give evidence that we intend to maintain for all physicians the high type of medical education and practice which has been furnished the American people in the years which have passed. We are willing to make whatever sacrifice is necessary to win this war. We will meet the increasing demands of civilian, governmental, military, and industrial needs for service by furnishing scientific medical care for the prevention of disease, for discovering and making available to all the newer methods of treatment, and for the continuation of medical education on its present high level. We will maintain for our boys in the armed forces, and for those civilians engaged in essential war activities, and for the civilian population, the best possible medical care of any people on earth.

THE SPEAKER: Dr. Paullin, we deeply appreciate your meeting with us here and leaving us so much food for thought. I am sure that the men of the profession of Tennessee will take up this question and to the best of their ability carry out the ideals which have been set before us. You can take to your own state association and on up to the American Medical Association the word that the medical profession of Tennessee will not let you down, that it is behind you.

We hear much of freedom, and all that the medical profession asks is freedom—freedom from regimentation, freedom from lay supervision, that freedom that will permit us to go out and under the leadership of our own men carry out the ideals that have always been associated with the medical profession.

I think we all can endorse this little prayer:

"God of the unknown purpose,
May our embarking be
The prayer of brave men asking
Not to be safe, but free."

The medical profession has a tremendous job before it, a tremendous responsibility, but in this

hour of peril I am sure the call to arms will be freely and fully answered. (Applause.)

We have one committee report to hear, that of the Committee on Resolutions.

COMMITTEE ON RESOLUTIONS

DR. J. O. MANIER: Mr. Chairman and Members of the House of Delegates: To refresh your minds as to what this Committee on Resolutions was asked to act upon, I will read to you the resolution that was made in the House. Dr. Shoulders made a motion to the effect that the House of Delegates of this Association instruct the Board of Trustees to appoint a committee of whatever number they might see fit to be termed a Committee on Hospital and Medical Care Prepayment Plan, to consider all the available information on the subject and report to the House of Delegates at its next meeting.

This motion was subsequently amended that the committee so appointed be instructed at once, and as soon as possible to prepare a tentative plan which should be published in the STATE JOURNAL for the information and study of the delegates prior to the next meeting; and still further amended that this House go on record as authorizing its Board of Trustees to meet any emergency in relation to this problem that might arise within the next year if such emergency did arise.

Your committee has considered this resolution and wishes to report as follows:

Your committee has considered the resolution offered in reference to prepayment plans, and recommends that the House of Delegates approve in principle the prepayment hospitalization plan, provided any such plan is (1) a nonprofit one in so far as any individual or corporation is concerned; (2) that the plan be fluid enough to permit freedom of choice on the part of the patient concerned; (3) that nothing in any such plan shall in any way interfere with the present patient-physician relationship as it exists at the present time in the practice of medicine; (4) that the Board of Trustees during the next year, prior to the meeting of the House of Delegates, be empowered to act on any emergency that might arise and in their judgment requires action in relation to these problems; (5) that the Board of Trustees be instructed to appoint a committee as provided in the resolution for the study of prepayment hospitalization and medical care; and that this committee be instructed by the Board of Trustees that it is their duty and function to prepare, at the earliest possible time practicable and possible, a tentative plan covering these problems, and to have this presented to the profession of the state through the medium of the JOURNAL in order that the delegates to the next annual meeting may have an opportunity to study and give thought to this problem, and so be better prepared to act upon it; (6) that the House of Delegates authorize the Board of Trustees to meet the necessary expenses of this committee which may be incurred by members of the committee when attending meetings called by the chairman of the committee for the purpose of studying this problem.

I move the adoption of the report of the committee, Mr. Speaker.

The motion was seconded by Dr. William Burns and Dr. E. G. Wood.

THE SPEAKER: Is there any discussion?

The question was called for, the motion was put to a vote, and carried unanimously.

TIME AND PLACE OF NEXT MEETING

THE SPEAKER: It has been suggested that we name the place of meeting for next year—an optimistic suggestion.

THE SECRETARY: That is an order of business, and of course it is for the House to act. It seems to me that the House might take an action authorizing the Board of Trustees to act on the question at the proper time as to whether or not we have a scientific meeting. They can do so on the basis of information obtained from authoritative sources and then can advise the profession. Anyway, the House can act on the matter and refer it; they can determine the place of meeting and whether or not a meeting is held. The date is fixed in the Constitution and By-Laws.

If it is in order, I will move you, Mr. Speaker, that the Board of Trustees be authorized to act upon the question as to a place of meeting and as to whether or not a scientific meeting shall be held.

The motion was seconded by Dr. R. B. Wood.

DR. WILLIAM BURNS: It belongs in Knoxville, doesn't it?

THE SECRETARY: It belonged in Knoxville this year, but was changed to Nashville in order to facilitate travel. The same conditions may exist next year; we do not know. I think the Board of Trustees, representing all sections of the state, can act, and, of course, the local societies can act if they wish by invitation.

DR. BURNS: No objection.

THE SPEAKER: Do you make that in the form of a motion?

THE SECRETARY: I do.

The motion was seconded by Dr. E. G. Wood.

THE SPEAKER: Is there any discussion? Those in favor say "aye"; opposed "no." It is so ordered.

Is there any other business to come before the meeting before we adjourn?

THE SECRETARY: The Board of Trustees will meet in Room 1023 in this hotel immediately after adjournment.

A motion to adjourn was regularly made, seconded, and carried, and the House adjourned at 3:35 P.M.

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION, JUNE 7-10, 1943

The House of Delegates of the American Medical Association opened its 1943 session June 7 at the Palmer House in Chicago with 170 delegates in attendance. Only the delegates from Alaska, the Philippine Islands, the Panama Canal Zone, and Puerto Rico were absent. There was a full representation from the sections. Owing to the exigencies of the war, the annual session was limited to a meeting of the House and to two general meetings. Speaker Shoulders in his address to the House called special attention to the work and importance of reference committees. He emphasized the fact that any doctor, whether or not a member of the House, is welcome and urged to go before any meetings of reference committees to engage in discussions or to give his viewpoint concerning resolutions referred to said committees.

The next address by the president, Brigadier General Fred W. Rankin, stressed particularly the problems facing medicine during postwar adjustments. Dr. Rankin warned the assembly that they must "face realistically" the trends in the national and international social and economic structure —trends directionally signaled by already established signposts such as social security, sick benefits, unemployment insurance, and old-age compensation. Doctor Rankin spoke also of the postwar rehabilitation of physicians — physicians whose entry into the service involves personal sacrifices—and the revamping of plans and ambitions and whose return to civilian pursuits will necessitate numerous readjustments and even a resumption of specialized training.

The importance of these problems was urged by President-elect James E. Paullin, who further recommended the development of a permanent Committee on Planning of Postwar Medical Services. Doctor Paullin also spoke of the distribution of the yearly graduates of medical schools and estimated that only twenty per cent of these can be expected to care for civilians. In regard to the relocation of physicians, Doctor Paullin stated that for 1942 and the first quarter of 1943 a total of 866 doctors were relocated, not all, however, by the Procurement and Assignment Committees. At the present time there is need for approximately 300 physicians in 198 areas.

Other speakers included Surgeon General Norman T. Kirk of the United States Army; George W. Morris, president of the American Bar Association; and Dr. T. C. Routley, secretary of the Canadian Medical Association. Reports were heard from the officers and the Board of Trustees followed by the reports of various committees and councils.

The second meeting on Tuesday considered additional recommendations, and was addressed by Flight Surgeon General David N. W. Grant. The latter told of the increase of flight surgeons in one year from ninety-seven to 9,500. High lights among discussions and recommendations include:

1. Plans for a bureau to outline and study existing schools for: X-ray medical technicians, laboratory technicians, physical and occupational therapy technicians, and medical record librarians.

2. Points under consideration for prepayment medical plans stressed emphasis on radiology, anesthesia, and laboratory procedures as a part of the practice of medicine; the ruling that hospitals be not permitted to practice medicine; the exclusion of a third party in the relationship between patient and physician.

3. A study of the postwar medical program has been made and a committee to handle this problem will be established.

4. A unanimous recommendation of the continually-urged appointment of a National Secretary of Health with the status of a cabinet member.

5. Establishment of a Council on Medical Service and Public Relations to consist of the president, president-elect, secretary, a member of the Board of Trustees, and six members of the American Medical Association chosen according to geographical location. This council will work in conjuction with the Bureau of Legal Medicine of the American Medical Association, informing

state and county medical societies of national legislation concerning public health and planning general medical care. The personnel of this committee has been named and appeared in the June issue of this JOURNAL.

6. The report of the Board of Trustees and Secretary gave the present membership as 123,000, of whom 45,000 are in the armed forces. Expenses for 1943 were reduced $7,000, and the income was increased $36,000 over the previous year. "War Medicine" heads the list of special journals and the JOURNAL has lost only slightly in circulation. The latter will be published in thinner form, due to increased cost of paper, but arrangements have been made for the continuance of scientific articles.

7. The proposed amendment introduced in 1942 to prevent some sixteen members of the sections from having a vote in the house was killed.

The third and final session of the delegates brought election of officers and the following were named:

President-Elect—Dr. Herman L. Kretschmer, Chicago.

Vice-President—Dr. John W. Amesse, Denver.

Secretary-Elect—Dr. Olin West, Chicago.

Treasurer-Elect—Dr. Josiah J. Moore, Chicago.

Speaker—Dr. H. H. Shoulders, Nashville.

The American Medical Association received an invitation from San Francisco for its 1946 convention, and the House voted an acceptance. Expressions of appreciation were extended to retiring President Rankin and to Speaker Shoulders, as well as to the National Broadcasting Company, for untiring efforts and hearty cooperation.

Index to Proceedings of the House of Delegates

	PAGE
Sunday Morning Session	329
List of Delegates	329
Committees Appointed	330
Nominating Committees	330
Minutes of Last Meeting	330
Treasurer's Report	330
Report of Audit for Year Ended December 31, 1942	330
Report of the Chairman of the Board of Trustees	332
Report of the Secretary-Editor	333
Report of the Committee on Public Policy and Legislation	335
Report of the Committee on Maternal Welfare	336
Report of the Committee on Child Welfare	337
Report of the Cancer Committee	337
Report of Committee on Scientific Work	337
Report of Committee on Postgraduate Instruction in Internal Medicine	337
Report of the Committee on Postgraduate Instruction in Surgical Diagnosis	339
Report of the Committee on Physical Therapy	340
Report of the Committee on Industrial Hygiene	341
Report of the Committee on Fractures	341
Report of Advisory Committee to the Woman's Auxiliary	341
President's Message	342
Councilors' Reports	342
Report for Second District	343
Annual Report to the House of Delegates from the Third District	343
Report of Tuberculosis Committee	343
Report of the Liaison Committee	343
Report of the Insurance Committee	343
Report of the Committee on Medical Education	343
Report of the State Hospital Committee	344
Report of the Committee on Memoirs	344
Report of the Delegates to the American Medical Association	344
President-Elect Bryan's Address	344
Sunday Afternoon Session	348
Report of Credentials Committee	349
Committee on Reports of Officers	349
Committee on Reports of Committees	350
Address of President	350
Address of President-Elect	350
Presentation of Gavel	350
Address of Dr. James E. Paullin, President-Elect of the American Medical Association, Before the House of Delegates, Tennessee State Medical Association, April 11, 1943, Noel Hotel, Nashville, Tennessee	350
Committee on Resolutions	353
Time and Place of Next Meeting	353

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

SEPTEMBER, 1943

EDITORIAL

Some Reactions on the Wagner-Murray-Dingell Bill (Senate Bill 1161)

A statement prepared by the National Physicians Committee on the Wagner Bill was published in full in the July issue of the JOURNAL, together with brief editorial comment. In the August issue a fairly lengthy editorial appeared addressed mainly to lay people.

Reprints of this editorial in pamphlet form have been prepared and are available for distribution to those who can use them effectively.

A number of doctors over the state have made favorable comment on this editorial and have handed copies of the JOURNAL to newspaper editors. Several fine editorials have appeared in local papers over the state as a result. A few of them are reproduced below:

That Move Toward State Medicine

A bill has been introduced in Congress which proposes to have the government extend medical and hospital benefits to approximately 110,000,000 persons in the United States. If made into law, it would cost the people, roughly, $3,000,000,000 annually in taxes to support what the advocates of the bill like to call "free" medical care. This is nearly as much as the total cost of maintaining the federal government each year on the average from 1924-1933. In addition, the entire fund would be at the disposal of one man, the Surgeon General of the Public Health Service, who, by law, would become a medical dictator.

We are indeed a sick nation if we are willing to swallow such a pill. After swallowing it, we would find that, instead of taking a progressive stimulant, we had taken a political opiate intended to dull our senses to an uncompromising truth soundly expressed by the Lake County, Indiana, Medical News: "It is only in an atmosphere of freedom that the lamp of science and learning can be kept alight. In all the history of the race, progress has never flowered in a subject people. It is only freemen who dare to think, and it is only through free thought that the soul of a people can be kept alive."

THE JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION warns laymen that the proposed "state medicine" is of concern to them; that it is not merely a controversy between doctors and a group of social uplifters and it directs three questions to the laymen as follows:

"Are you in favor of destroying a system of medical practice which has demonstrated its effectiveness over many years and which contains the elements of freedom above set out, and accept in lieu of it a system of practice financed by the government through taxes paid by you, and administered by a single federal officer with autocratic power over both you and your doctor?

"Are you willing to exchange your freedom, as it may relate to your medical care, and accept in lieu of that freedom the dictates of a government agent appointed by a political authority?

"Are you willing to run the risk of destroying the democracy which you know in order for a government agent to carry on an expensive experiment in the field of medical care with your money and your freedom?"

The Tennessee JOURNAL calls attention to the fact that it is up to laymen to decide what their representatives in Congress will

do about this bill and it adds: "Herr Hitler rode into power mainly on the wings of a welfare movement."—*The Jackson Sun*, Jackson, Tennessee, August 22, 1943.

Doctors Throughout Country Denounce Wagner-Murray Bill as Un-American in Provisions

A wave of indignation seems to have swept over the medical fraternity not only here, but throughout the country, over the proposed Wagner-Murray Bill in this Congress, which physicians say would inaugurate "state medicine—political control over medical services."

One leading Springfield physician has brought to this office some enlightening literature on the subject, which he says is just another example of how certain insidious influences in this country are trying to "Russianize America, destroy all individual initiative and make everyone subject to bureaucratic domination."

Heading the national opposition to this bill is the National Physicians' Committee for the Extension of Medical Service, with headquarters in Chicago.

The committee regards this bill, which is expected to come up for discussion next winter, as by far the most dangerous proposal, from the standpoint of free economy, that has yet been made.

While the nature of the bill has caused more political leaders to regard it as too drastic for passage, medical critics of the measure are not trusting it to defeat itself. They say they intend to make known to the masses of people what it means in terms of their own pay checks, and their relations with the family doctor and with their government.

A great flow of pamphlets has been started from committee headquarters informing people about the bill and stressing that the bill, if it were passed, would mean political medicine for the United States at an annual cost of $3,048,000,000. The committee figures the cost to the individual family head would average $120 a year.

FIRST BLUEPRINT OF SCHEME

Introduction of the bill serves one useful purpose, as John M. Pratt, executive administrator of the National Physicians Committee sees it.

"For the first time," he said, "we are given in blueprint form the complete philosophy of the group favoring sickness insurance, together with details for carrying it out—the mechanics of execution and administration. At last we know just what they propose."

Mr. Pratt says the proposal adds up to complete bureaucratic domination of the American people.

"If the recommendations of this bill are enacted into law," he declared, "they will destroy the private practice of medicine in the United States."

The committee upon which Mr. Pratt serves has two main objections to the bill. First, as its members analyze it, it makes the Surgeon General of the United States Public Health Service a virtual dictator.

"It proposes," says the committee, "placing in the hands of one man—the Surgeon General—the power and authority to hire doctors and establish rates of pay; to establish fee schedules for services; to establish qualifications for specialists; to determine the number of individuals for whom a physician may provide services; and to determine what hospitals or clinics may provide service for patients."

The second major objection of the committee is to the cost of the service and the burden it would place upon the people forced to participate.

COST RUNS INTO BILLIONS

The committee estimates that under the terms of the bill a minimum of $3,000,000,000 would be transferred from the Federal Social Insurance Trust Fund to the Medical Care and Hospitalization account each year. This is enough money to enable the Surgeon General to pay for every available bed in nongovernment-owned hospitals at the rate of $5.00 a day, and for every bed in government hospitals at $2.50 a day; to hire every effective physician in the nation at $5,000 per year; to spend a sum of something over $168,000,000 a year for drugs; and still to have $600,000,000 for administrative costs. In addition, says the committee, the bill provides a fund for medical

education. With this money, as the committee also estimates, the Surgeon General could assume the total cost of operating the sixty-six accredited medical colleges of the United States, provide scholarships of $700 for 22,000 students, and still have about $11,000,000 left for research.

FOR DOCTOR "ABJECT SLAVERY"

While these expenditures seem extravagant to the committee, its members object to the bill more on the ground of its probable effect on the medical profession than on its cost.

"State medicine—political control of medical service," the booklet states, "always has meant, always will mean, for the mass of people medical care through and by physicians who are politically amenable rather than by those with superior abilities and skills.

"For the doctor, state medicine means abject slavery. . . . It is understood that, if the medical profession is regimented, it will represent a decisive step forward toward establishing centralized federal control of all the professions of all industries."

The committee figures it will take about 150,000 persons to administer the act—to "tell patients where to go and doctors what to do." This, it believes, will establish a new class of people with a vested interest in the perpetuation of sickness insurance.

The committee reports it is getting an enthusiastic response from many of those to whom it has sent its literature, including 131,000 doctors.—*The Springfield Herald*, Springfield, Tennessee, August 23, 1943.

Bureaucratic Control of Medical Service

The current issue of the *American Medical Journal* warns the taxpayers of this country that they will be subjected to a severe drain upon their pocketbooks and bank accounts than they are now enduring if the socialized medical bill is passed by Congress.

The *Journal* finds that the public is awakening to the dangers embraced in the bill and quotes from several newspapers, including *The Jackson Sun*, which points out that socialized medicine cannot possibly be embraced in our democratic system without destroying the fundamentals of that system.

The Madison County Medical Society, as well as the State Medical Association, is strongly opposed to the enactment of the bill.

The Mansfield, Ohio, *News-Journal* criticizes the congressional proposal, known as the Wagner-Murray Bill, to create a $3,000,000,000 socialized medical system, in a way that clearly reveals the basic principles involved. That periodical says:

"It has long been the established practice of communities—municipal, township, and county—to provide for medical treatment of charity cases, and it has also been the consistently maintained attitude of many physicians and surgeons to base their charges on 'ability to pay,' but it may be doubted it there is even a fair-sized minority of Americans who would wish medical or surgical service to be placed under political management and made part of a paternalistic government's 'free' service.

"Reduced to individual consideration, there is probably no needed service more subject to confidence, personal preference and right of selection than that of the physician or surgeon to be called in cases of sickness or accident. The idea of having any politically appointed doctor who happened to be handy sent to a home in case of illness or assigned to perform an operation would be intolerable to a great majority of people.

"Under what has been—and should continue to be—the American system, the practice of medical surgery has advanced amazingly during the past century and is just now in the midst of some marvelous new achievements.

"The deadening effect of political control, which penalizes superiority and glorifies mediocracy, should not be permitted to invade a professional field in which superior ability and skill is preferred above partisan considerations.

"Imagine, for instance, a doctor or surgeon being chosen by methods similar to those used in selecting a postmaster!"—*The Jackson Sun*, Jackson, Tennessee, September 7, 1943.

State Medicine

A bill is before Congress, the Wagner-

Murray-Dingell Social Security Plan, to provide medical services for anybody and everybody on a strictly political basis.

Under this newest plan of folly, the Surgeon General of the Public Health Service would be empowered to hire doctors and establish rates of pay; to establish fee schedules for services; to establish qualifications for specialists; to determine the number of individuals for whom any physician may provide service; to determine arbitrarily what hospitals or clinics may provide service for patients.

THE JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION declares that the bill, if made law, would "completely destroy the system of medical practice now in operation in this country and substitute for it what is known as state medicine or a communistic or totalitarian system of practice."

It would mean further that a patient would have no choice of physician, that medical science would be put on a par with garbage collecting, with a bureau in Washington directing the action of all doctors.

It would dull medicine's constant quest for stamping out disease, making of the science political drudgery and of doctors political charlatans. In the event of law, the bill would operate to place politics above knowledge, making possible the sending of a man who votes right instead of a man who knows to a deathbed.

We do not believe there is anybody worth his salt in the United States who wants "free" government medical service. It would cost the taxpayers three billion dollars a year to run it, and result in tremendous death rates.

Medical surgery has advanced amazingly in the last century under the American system. Marvelous new achievements are just over the horizon. It must be allowed a flourish under our system instead of being subverted to government control.

Political control penalizes superiority and glories mediocrity. It should not be allowed to invade our professional fields.

Let your Congressman know that you are opposed to this bit of idiocy.—*Carthage Courier*, Carthage, Tennessee.

A RESPONSE FROM THE DOCTORS WHO ARE OVERSEAS

The following statement is taken from a V-mail letter written by Lieutenant B. F. Byrd, Jr., to his mother from his station overseas:

"My alumnus and TENNESSEE JOURNAL are coming in fine and I enjoy them thoroughly. Tell Doctor Shoulders that I read his interpretation of the Socialized Medicine Bill and that we are all interested in more of that stuff over here, for that is what we will need to know—what is going on at home in the profession. There may be nothing that we can do about it, but at least we can think a little bit and there is a great deal of thinking going on in this Army."

One striking expression in this letter is to the effect that the men in this Army are thinking about the America for which they are fighting and to which they will come back when the war is won. There can be no doubt that a large number of people at home who are kidding themselves into believing that they are especially endowed to plan the kind of America these men wish to come back to.

It is estimated by competent authority that there are now six million five hundred thousand federal, state, and municipal government employees in the United States, exclusive of persons in the military service. The passage of the Wagner Bill would increase the number enormously and bring a still larger number of people under bureaucratic domination.

If the writer is able to interpret the sentiment of those who are fighting and winning this war, it is to the effect that they do not wish to come back for the purpose of carrying such a load of bureaucrats on their backs for the rest of their lives, to say nothing of the loss of the very freedom for which they have bravely fought.

Anyone can estimate the political influence that can be exerted by such a bureaucracy. Certainly it will be exerted in the direction of its own preservation.

Those in service certainly deserve at least a chance at planning the America they wish to live in.

It seems to the writer it would be well

not to undertake the job of planning their America for them too far ahead and without giving to them a voice in the matter.

The writer cannot forget an incident which followed World War No. 1. Briefly, it was as follows: A large number of hospitals were created for the purpose of giving proper care to men who had suffered service connected disabilities. In due time a large portion of these beds were vacated. Then it was that the personnel of these institutions became alarmed about the security of their own positions, and they proposed an amendment to the World War Veterans Act which provided that men with nonservice connected disabilities be admitted to government hospitals so long as beds were available. This legislation was motivated by those who had jobs in the administration of veterans' benefits. It was disguised to appear as a benefit to veterans. It might be well to keep this incident in mind.

Shall the Purpose of Medical Organization Be Altered?

The objects of a medical organization are stated in Article 2 of the Constitution and By-Laws of the American Medical Association as follows:

"The objects of the Association are to promote the science and art of medicine and the betterment of public health."

Chapter I, Section 1 of the Principles of Medical Ethics reads as follows:

"A profession has for its prime object the service it can render to humanity; reward of financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals."

These two expressions contain a great deal of the philosophy of medicine. No one can estimate the influence these guiding principles have exerted for the benefit of humanity. The benefits could hardly be enumerated. The question to be pondered now is whether they shall cease to exist. The question is whether the purpose of organized medicine shall be revised to state something like the following:

"The objects of this Association shall be to promote improvement in the pay and working conditions of doctors who work under the czar of medicine in the United States.

It will be a sad day for the people of the United States if this should ever happen; but insofar as the writer can see, it is the only way by which the members of the medical profession of the United States could protect themselves against the whims and decrees of such a czar as would be created by the passage of the Wagner-Murray-Dingell Bill.

One big factor stands out in this big picture. If the people of the United States receive care, it will be rendered by doctors. It will not be rendered directly by an administrative agency.

It would be a simple matter for doctors to organize themselves for the purpose of protecting their own interests if compelled to do so. Furthermore, there are in existence statutes which would be to the advantage of such an organization of doctors. Certainly it is possible for such an organization to become so powerful that it could at least bargain effectively with such a medical czar as would be set up by the Wagner Bill.

It is painful to even intimate that such a change may become imperative, but since the proposal is up for consideration by the Congress of the United States, it is only fair that such a possibility be mentioned.

Robert Quillen Says

If you prefer having a fair warning before the storm hits, go first to your doctor to have your blood pressure checked and then write to one of your senators for a copy of the Wagner-Murray Senate Bill 1161. He will send you one without charge, and you will find it a remarkable document well worth reading.

The chief author of the bill is the same German-born Senator Wagner of New York who gave us the law that "protects the rights of labor," but denies the boss even the right of free speech. And if all goes well, the bill will be passed by the next Congress.

Its purpose is to provide more social security, including medical care. And, as usual, it levies a tax—this time a whopper.

It will add $12,000,000,000 a year to our annual tax burden—twelve times the total cost of government when dad was a youngster.

It will take six per cent from your pay envelope up to $3,000 and another six per cent from the boss. From the self-employed the doctor, farmer, merchant—it will take seven per cent up to $3,000, or $210 a year.

Three-fourths of the money will be used to extend the benefits of social security, but one-fourth, or $3,000,000,000, will be turned over to the Surgeon General, and he will be the absolute czar of American medicine, empowered to provide free medical and hospital care for 110,000,000 people.

He will control all hospitals and decide which ones can operate and how much they shall charge.

He will tell doctors where to practice and how many patients they may have and how much they may charge. He will also decide which ones may call themselves specialists.

(The bill generously permits each of us to choose his own doctor, but not if the one of our choice already has his allotted number of patients.)

There are many other remarkable provisions in the measure, but this is enough to give you the idea.

Three billion dollars is a lot of money. It is enough to hire every doctor in America at a salary of $5,000 a year; to hire every bed in every privately-operated hospital every day in the year at the rate of $5.00 a day; to pay $2.50 a day every day in the year for each bed in government-owned hospitals; to spend over $250,000,000 a year for medicine and supplies, and still leave $500,000,000 for political jobholders.

If your doctor seems a little absent-minded and peevish these days, he is thinking about his future when politicians control the practice of medicine.

(Reprint of article appearing in the *Indianapolis Star*, August 5, 1943.)

DEATHS

Dr. Hugh B. Disharoon

Dr. Hugh B. Disharoon, Lewisburg; Vanderbilt University, School of Medicine, 1935; lieutenant colonel in the Medical Corps, Army of the United States; aged thirty-two; died August 22, 1943, in the Station Hospital, Fort Benning, Georgia, of virus pneumonia.

Dr. Ferdinand Maddin Malone

Dr. Ferdinand Maddin Malone, Capleville; Memphis Hospital Medical College, 1903; aged eighty-five; died June 25, 1943, of pneumonia.

Dr. Charles Gregory Griffin

Dr. Charles Gregory Griffin, Miami, Florida, a former physician of Nashville; University of Tennessee, 1908; aged sixty-one; died suddenly August 31, 1943, of heart disease while visiting in Nashville.

NEWS NOTES AND COMMENTS

Change of Address

Dr. Lew Wallace, Madison Sanitarium, Madison College, to Mountain Sanatorium and Hospital, Fletcher, North Carolina.

Dr. W. C. Winton, California Sanatorium, Belmont, California, to Iola Sanatorium, Rochester, New York.

Wartime Nursing Is Different

The following statement has been issued and released by the directing Board of War Manpower Commission's Procurement and Assignment Service for Physicians, Dentists, Veterinarians, Sanitary Engineers, and Nurses:

It is utterly impossible to provide the necessary volume of wartime nursing service on a peacetime basis. Places where nursing is going on as usual must share with others. Individual nurses who have not made adjustments to wartime needs for their service should understand the necessity for their participation.

The National Nursing Council has pointed out that the value of any national plan must be judged by its usefulness at the local level—i. e., where nurses live and work—in

the country, in the villages, towns, and cities of the nation.

Wartime nursing is different. That inescapable fact must be generally accepted by nurses, by physicians, and by hospital administrators. Energy and motion now spent in resistance to change must be released for the attack on war-created needs.

Nurses have wrought many changes, but not enough, in the pattern of nursing service since Pearl Harbor. "We just do the best we can" is heard more frequently than "This is our plan." Genrally speaking, educational programs have received more thought than the service programs. Acceleration of the basic course in nursing is an outstanding example. State boards of nurse examiners have initiated others.

The principles of good nursing have not changed, but nurses are learning to concentrate on the essentials. In the analysis and administration of nursing service radical changes are being made. Tremendously valuable assistance in caring for patients is being secured from the Red Cross nurses' aids and other volunteers as well as from paid auxiliary workers.

Thus far nursing service has not been rationed; such rationing would be complicated by the differences in individual nurses and the degree of essentiality of needed services. The sharing of services is more difficult than the sharing of goods.

A critical shortage of nurses exists. Here are the facts:

Over 36,000 nurses are now with the armed forces and the Red Cross has accepted responsibility for the recruitment of an equal number by June 30, 1944. Our men are receiving skilled medical care of a high order as shown by the high percentage of recovery from injury. Skilled nursing is an important factor in such care. Then, too, the very presence of nurses near the bases of military operations has repeatedly been described as a potent force in maintaining morale.

There has been an unprecedented increase in the use of civilian hospitals. Hospitals gave fourteen and a quarter million more days of care in 1942 than in the preceding year and the trend still is definitely upward. This is in keeping with the rapid growth of the Blue Cross (group hospitalization) plans and the Children's Bureau hospitalization program for the care of the families of service men.

Nursing is essential to the nation's health. The National Nursing Inventories (of nursing resources) of 1941 and 1943 by the United States Public Health Service offer a a comparison of data for the two years.

The total number of nurses graduated in the two years is well in excess of the number withdrawn for military service; this fact is not apparent in the inventory. The returns are apparently incomplete. Active nurses who did not return their questionnaires apparently did not realize the profound importance of the information requested. This information is the basis for present planning and safeguarding the future.

The relatively small decrease in the number of institutional nurses is much less significant than the increased use of hospitals in creating the serious shortage of nurses. The increased number of nurses in industrial nursing is, of course, not surprising.

The large number of inactive nurses who reported themselves available is encouraging, but available for what? Full time? Part time? These nurses and others who are still "hidden" can make a valuable contribution to our nursing resources. Although it requires a little more planning, the service of two part-time nurses can equal that of one full-time one. Wartime nursing puts a tremendous burden on all the administrative nurses.

Here is the program of the new Nursing Division of the Procurement and Assignment Service. The Red Cross recruitment committees are pledged to recruit 36,000 nurses this year. The new division will: (1) determine the availability for military service or essentiality for civilian service of all nurses eligible for military service and submit such determinations to the American Red Cross for use in procurement of nurses for the armed forces; (2) promote plans for maximum utilization of full-time nurses and those who are able to serve only part time; (3) develop and maintain a roster of all graduate registered nurses; and (4) develop and encourage sound methods

of supplementing the work of nurses with nonprofessional personnel.

Through the War Manpower Commission, nursing will not only have the benefit of the experience of medicine in the procurement and assignment of physicians, but means will be found to interpret wartime nursing to physicians and their cooperation secured in effecting desirable wartime adjustments.

Suggested Reading

1. *Priorities for Nurses.* National Nursing Council for War Service, 1790 Broadway, New York, New York, May, 1943, revised edition.

2. *Distribution of Nursing Service During War.* National Nursing Council for War Service, 1790 Broadway, New York, New York, May, 1942.

3. *Volunteers in Health, Medical Care, and Nursing.* United States Office of Civilian Defense, Washington, D. C.

National Nursing Inventories

	1941	*1943*
Total Returns	289,286	259,174
Active		
Institutional	81,708	77,704
Public Health	17,766	18,900
Industrial	5,512	11,220
Private Duty	46,793	44,299
Other	21,276	18,476
Inactive but Available for Nursing	25,252	*38,746
Inactive, Not Available	90,979	49,829
In Nurse Corps of Army and Navy	6,371	over †36,000

*Of these 23,576 are married and under forty.
†Precise data not available.

Continuous Caudal Analgesia in Obstetrics

Eli Lilly and Company, Indianapolis, announces the release of a sixteen-millimeter silent motion picture in color on the subject, "Continuous Caudal Analgesia in Obstetrics." The film is available to physicians for showing before medical societies and hospital staffs. It deals with the history, anatomy, and physiology of caudal analgesia and demonstrates the technic of use in obstetrics.

The film was made at the United States Marine Hospital, Staten Island, New York, by authorization of the Surgeon General, United States Public Health Service, and the demonstrations were carried out by the originators of the technic, Dr. Robert A. Hingson and Dr. Waldo B. Edwards.

The most important medical meeting ever held in this nation in time of war will convene in Philadelphia October 21, when the Association of Military Surgeons of the United States begins its three-day sessions in the Bellevue-Stratford Hotel to mark the fifty-first meeting of the organization.

The symposium on war medicine will be of vital and direct interest to the health and welfare of the men in the armed forces, to physicians, research specialists, and scientists everywhere, as well as to the general public. It is expected that the meeting will bring here 2,000 doctors, many of whom have been in active combat with the service men in every camp and base throughout the country and on all the fighting fronts.

The announcement of the plans for the convention of military surgeons was made recently by Rear Admiral William L. Mann, M. C., of Seattle, Washington, president of the Association of Military Surgeons.

"It is especially appropriate that Philadelphia should furnish the setting for this most important meeting. Philadelphia has long been recognized as the first city of medicine and has made enormous contributions to the advance of medical science. Then, too, it is the birthplace of American freedom, which our military surgeons are now helping our fighting men maintain in this struggle for the survival of democracy throughout the world," Rear Admiral Mann said.

The meeting will be of a magnitude and scope never before known in the history of the organization, according to Rear Admiral Mann. Medical officers of the armed forces who have seen actual duties in the various combat zones will report firsthand on the United States medical services under combat in climatic conditions new to American arms.

Medicine's methods of meeting the new and complicating factors brought on by mechanized modern warfare will also high light the sessions. There will be reports and discussions on such new matters as air evacuation, parachute injuries, the physiological aspects of high altitude flying and dive bombing, tropical medicine, blast injuries, amphibious operations, submarine

warfare, immersion and temperature extremes, neurosurgical problems, and the whole field of rehabilitation.

The military surgeons' meeting will be opened with addresses of welcome by Governor Edward Martin of Pennsylvania and Mayor Bernard Samuel of Philadelphia. At the initial evening session, to be known as "Army Night," the President will deliver his greetings to the convention via radio. There will be addresses by the Chinese ambassador, Wei Tao-Ming, and by Surgeon General Norman T. Kirk of the United States Navy.

At the following night's session, which will be known as "Navy Night," the principal speaker will be the Hon. Frank Knox, Secretary of the Navy. The presiding officer will be Rear Admiral Ross T. McIntyre, surgeon general of the United States Navy and personal physician to the President.

Nation-wide hookups will carry reports of the meeting to the public at large and by short-wave broadcast to the people in Allied countries, who will be apprised of the progress of the convention and its meaning to the men in arms and national health in general.

The convention, with its score of exhibits and meetings, will occupy all available floor space in the Bellevue-Stratford during its stay here. The program will list, besides general sessions, a series of forum lectures and teaching panels as well as a great number of film showings.

MEDICAL SOCIETIES

Davidson County:

September 7—The medical staff of the Thayer General Hospital were guests of the Nashville Academy of Medicine and Davidson County Medical Society at a dinner held at the Hermitage Hotel.

Knox County:

The Knox County Medical Society met on August 24. Dr. E. R. Zemp read a paper on "Observations on the Diagnosis and Prognosis of Nephritis." Discussed by Drs. A. R. McCullough and John Hill.

Shelby County:

August 3—"Case Reports: An Improved Closed Technique of Venepuncture for Continuous Intravenous Therapy," by Dr. B. C. Collins.

"Toxemia of Pregnancy with Premature Separation of Placenta," by Dr. C. E. James.

Papers: "Purpura Fulminans," by Dr. W. L. Rucks. Discussion by Drs. A. G. Jacobs and W. R. Graves.

"A New Barbiturate: An Experimental Study," by Dr. J. M. Brockman. Discussion by Drs. C. E. Warde and W. W. Walker.

September 7—"Case Reports: Intestinal Obstruction Due to Endometriosis," by Dr. L. N. Pierotti.

"Dermoid Cyst of Left Ovary and Ectopic Pregnancy of Right Tube in Same Patient," by Dr. Breen Bland.

Papers: "Rocky Mountain Spotted Fever," by Dr. L. W. Diggs. Discussion by Drs. S. L. Wadley and Henry Packer.

"Treatment of Fractures of the Ulna with Dislocation of the Head of the Radium," by Dr. H. B. Boyd. Discussion by Drs. E. J. Lipscomb and A. H. Meyer.

ABSTRACTS OF CURRENT LITERATURE

INTERNAL MEDICINE

By R. B. Wood, M.D.
By D. R. Thomas, M.D.
Medical Arts Building, Knoxville

Essential Hypertension in Modern Concepts of Cardiovascular Disease. Dr. Eugene M. Landis, Charlottesville, Virginia.

Hypertension is not a disease entity in man, but a clinical sign which occurs in a large number of diseases and may be produced by one of several mechanisms. It is the problem of the physicians to determine whether it is (a) the secondary result of another and underlying disease, (b) is due to a remedial renal lesion, or (c) is truly a hypertension of unknown etiology.

Essential hypertension refers to an abnormally high systolic and diastolic arterial pressure in an individual who does not have inflammatory kidney disease, urinary tract obstruction, or other diseases known to result in elevation of the blood pressure.

Pathogenesis: Elevation of arterial pressure may arise from (1) increased blood volume, (2) increased viscosity, (3) increased cardiac output, (4) increased peripheral resistance, or (5) any combination of the above. In addition the effect of cir-

culating hormones and the sympathetic nervous system plays an important role through their effort on output and peripheral resistance. Cardiac output, blood volume, and blood viscosity having been found normal, it became obvious that peripheral resistance must be the important abnormality and it was long held that the main abnormality in a hypertensive consisted of an increase in peripheral resistance due to an increased tone of the splanchnic arterioles.

After finding that there was not the expected increased blood flow to the other organs, it was recognized that their increased vascular tone was a general vascular and not a splanchnic affair. Further studies reveal that despite the increase in basic tone the arterioles still respond approximately normally to local heat, color, epinephrin, histamine, and various other methods of eliciting vascular reactions. Thus a rational explanation for the insidious onset of this ailment, as no effect on diminished blood flow exists until structural changes have taken place. Even normal insulin and diadrast clearance tests of the kidneys are encountered in well-established hypertension because the volume of glomerular filtrate is maintained by the increased pressure in spite of the construction of the efferent arterioles in the kidneys.

The increase in arteriolar tone may be either neurogenic or humoral in origin. Goldblatts' work on animals removes the idea of overactivity of the sympathetic nervous system. Total sympathectomy does not prevent the increase in pressure or relieve it. In man when sympathetic vasoconstrictor impulses to the extremities of hypertensives or normals are blocked, blood flow increases equally in both, indicating the sympathetics are not overactive. However, in some patients, sympathectomies have been followed by lowering of the blood pressure.

The evidence for a humoral mechanism is varied, suggestive, and incomplete. Removal of an ischemic kidney from dog or man causes a drop in the elevated pressure. The search for a pressor substance in the blood of hypertensives continues. Most of substance suspected elevate the pressure, but reduce the peripheral flow—a condition not found in hypertensive patients. Page and Houssay have found that renin in combination with a pseudoglobulin in blood plasma produces a dialyzable constrictor substance which is directly pressor when injected into animals or man. Recently it has also been found suggestive evidence that normal kidney tissue contains a substance of unknown composition and stability which destroys these pressor substances.

Another hypothesis suggests that the pressor material may be a pressor amine which might be released when ischemia interferes with the action of enzymes as amine oxidase. Wide testing has not verified the above. This theory as the renin theory are of interest because they (a) attempt to explain the humora theory and (b) form the basis for two efforts to devise specific treatments of hypertension.

Symptoms and signs: Discovered often incidentally or because of nervousness and tenseness, the organic changes will develop slowly over many years. The symptoms are usually those of coronary or cerebral vascular accident. In the malignant the hypertensive encephalopathy, cardiac or renal failure may develop in a few months.

On examination the degree of vascular changes is estimated by palpation of superficial arteries, ophthalmoscopic examination and by renal functional tests. Intravenous urography and, if necessary, retrograde pyelography and appropriate indicated urinary cultural studies should be a routine procedure.

To be ruled out are such diseases as coarctation of the aorta, polycystic kidney disease, congenital anomalies, glomulo-nephritis, pyelonephritis, and adrenal tumors. Extremely important is the recognition of unilateral renal lesions before organic changes from long-existing hypertension has taken place.

Prognosis depends on several factors and repeated study and long observation are necessary for accurate predictions. The higher the diastolic and the younger the person, the worse the outlook. Retinal hemorrhages, exudates, and papilledema signify a poor prognosis.

Treatment: A specific treatment is not available. Both medical and surgical are purely symptomatic, yet they have something to offer.

Optimism on the part of the physician is essential and patients should not become preoccupied with "inconsequential and spontaneous fluctuations of blood pressure, which is characteristic of the disease. Concentration on adopting a "way of life" is more apt to insure longevity. Manipulations of diet other than general restriction, particularly in the obese, have no lasting effect. Salt restriction is limited to those with cardiac edema. Vaso dilating drugs should be reserved for sudden dangers, elevation of blood pressure. Estrogenic hormones are worthy of trial in the hypertension of females at the climacteric. Potassium thiocynate will reduce blood pressure slightly in thirty to forty per cent of patients, but is less effective as organic changes take place.

The dosage should be adjusted for each patient and controlled by blood checks.

The renin and amine theories have each served as the basis for attempt at specific therapies, but these are still in the purely experimental stage.

The surgical treatment of true essential hypertension has had a checkered career. Unilateral nephrectomy for renal hypertension is indicated if seen before too many organic changes have taken place. Subtotal adrenalectomy has been discarded. In general, it seems that combined lumbo dorsal splanchicectomy is more advantageous. Smithwick summarizes:

"When the indications for operation are clearly defined, it is to be expected that a high percentage of carefully selected patients will benefit, as judged by persistent and significant lowering of blood pres-

sure levels. Regression of eyeground changes, decrease in the size of the heart, improvement in the electrocardiagram, improvement of renal function and relief of symptoms are noted in certain cases, and present additional ways of evaluating the results of surgery. Furthermore, time may show that life expectancy is increased. There can even now be no doubt of such an increase in cases of malignant hypertension and in patients with severe retinitis who have been subjected to adequate surgery before renal and cardiac functions have been seriously impaired. At the present time, surgery appears to offer the greatest hope for these patients.

"The mortality from operative treatment by a surgeon experienced in this field is small. It seems likely that sympathectomy should be recommended much more often and much earlier than is the case now even though available evidence indicates that this operation represents symptomatic rather than etiologic treatment. A closer consultative relationship between physicians and surgeon is essential. In the meantime, however, vigorous search for more specific, direct, and rational therapy should be continued."

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

Nutrition Studies During Pregnancy. Bertha S. Burke, M.A.; Virginia A. Beal, B.S.; Samuel G. Kirkwood, M.D.; and Harold C. Stuart, M.D. American Journal of Obstetrics and Gynecology, Vol. 46, No. 1: 38, July, 1943.

This study has shown a statistically significant relationship between diet of the mother during pregnancy and the condition of her infant at birth.

If the diet of the mother during pregnancy is poor to very poor, she will in all probability have a poor infant from the standpoint of physical condition. In the 216 cases studied, every stillborn infant, every infant who died within a few days of birth, with the exception of one, the majority of infants with marked congenital defects, all premature, and all "functionally immature" infants were born to mothers whose diets during pregnancy were very inadequate.

If the mother's diet during pregnancy is excellent or good, her infant will probably be in good or excellent physical condition. However, it may happen occasionally (one out of 216 cases in this series) that a mother whose diet during pregnancy was "excellent" or "good" will give birth to an infant in poor physical condition.

A statistically significant relationship was found to exist between prenatal diet and the course of pregnancy. This relationship, however, is not as marked as that existing between the prenatal dietary rating and the condition of the infant. This indicates that when nutrition during pregnancy is adequate, the fetus suffers to a greater degree than the mother.

In this study, no mother whose diet during pregnancy was considered "good" or "excellent" had pre-eclampsia, while with a "poor to very poor" diet during pregnancy almost 50 per cent had pre-eclampsia.

No statistically significant associations were found to exist between prenatal nutrition and the duration and character of labor and delivery. There was a tendency for the mothers whose diets during pregnancy were "poor to very poor" to have more major complications at delivery, despite the fact that these women had, on the average, smaller infants than were born to the women whose diets were "good" or "excellent."

No relationships of statistical significance were found to exist between prenatal nutrition and the post-partum course. There seemed to be a tendency toward a relationship between prenatal nutrition and the occurrence of major complications in the puerperium.

Acute Intestinal Obstruction Due to Bands Complicating Pregnancy. F. B. Block and P. S. Sales. American Journal of Obstetrics and Gynecology, Vol. 46, No. 1: 135, July, 1943.

The objects of this presentation are to direct attention to the serious combination of acute intestinal obstruction and pregnancy largely because of delay in diagnosis to outline the proper management of such cases based upon personal experience and to review the literature; and to report two of the author's cases, in one of which two episodes of intestinal obstruction occurred during the same pregnancy.

The diagnosis of intestinal obstruction during pregnancy should not be difficult, but it is seldom made in the early stage. The symptoms of obstruction are pain, vomiting, constipation, and distention, in that order of frequency, but it will be readily noted that any or all of these symptoms may be present in the course of a normal pregnancy. Rhythmic pain may be equally prominent in an oncoming miscarriage as well as in intestinal obstruction, but in the former it is not likely to be associated with the other cardinal symptoms of obstruction and is often accompanied by some bloody vaginal discharge. Vomiting is, of course, quite common in early pregnancy, but most obstructions occur after the fifth month, when emesis is not to be expected. However, in one case reported the vomiting continued all through pregnancy up to the time that intestinal obstruction supervened, while in another case there was no vomiting at any time. Constipation and distention are so common during pregnancy that they are of little value in differential diagnosis, but the presence of high-pitched tinkling peristalsis on abdominal auscultation may be of considerable aid in the obstructed case. Many cases give a history of minor obstructive symptoms during pregnacy be-

fore complete obstruction occurs. The demonstration of small bowel distention by X-ray examination is almost pathognomonic of obstruction, but a negative report does not rule out the condition. The diagnosis will be made with increasing frequency provided the obstetrician thinks of this possibility in all pregnant patients who have had a lower abdominal operation, whose complaints are of more than a minor character which are not promptly relieved by minor therapy.

Acute intestinal obstruction is an uncommon, but serious complication of pregnancy. One of the most common causes of obstruction during pregnancy is the presence of adhesive bands resulting from a previous lower abdominal operation which become taut as the enlarging uterus pushes the intestine into the upper abdomen. Obstruction may occur at any interval after an abdominal operation, and the fact that a patient goes through a normal pregnancy after such an operation is no assurance that she will not become obstructed during a subsequent pregnancy. The presence of mechanical obstruction should be suspected in any pregnant patient who has had a previous lower abdominal operation and who presents the obstructive triad of cramplike pain, vomiting, and obstipation. If X-ray examination shows distended small bowel the diagnosis is made, but negative X-ray examination does not rule out the diagnosis. The proper management of this condition consists of early operation to release the obstructing bands, making a thorough search until all points of obstruction have been released. Conservative intestinal intubation should not be used in this condition. Two cases have been presented in one of which two separate episodes of intestinal obstruction occurred during the same pregnancy.

What lesson are we to learn from this study? It does teach us to suspect intestinal obstruction when the abdomen bears a scar with or without a history suggesting intermittent partial obstruction. Furthermore, this and other surgical complications of pregnancy warn us that the obstetrician should have had basic training in the handling of surgical problems; that he should remember that the enteric cavity contains more than a uterus and fetus, and that he should not hesitate to call for the aid of an experienced surgeon when signs or symptoms of a bowel lesion appear.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Sudden Changes of Ocular Refraction from Internal Causes. A. Vazquez Barriere. American Journal of Ophthalmology, July, 1943.

The article deals particularly with the well-known changes occurring in diabetes and those arising after intravenous injection of arsenical drugs.

The refractive changes observed in diabetes have varied from nine D. of myopia to four D. of hyperopia, the hyperopic change, however, being much less frequent. Changes of this kind were formerly recorded in as many as four per cent of the cases of diabetes. They have frequently been a source of embarrassment to the ophthalmologist who failed to appreciate their cause. They are usually explained as due to modification of the refractive index of the crystalline lens, and no such case has been recorded in an aphakic eye. The effect on the lens has been attributed by some writers to concentration of glucose in the lens substance. Others regard the change as being produced rather by variation in the concentration of chlorides. Still others have explained the concentration of chlorides as a retention resulting from concentration of glucose. But it is arguable that the concentration of chloride or glucose necessary to cause some of the greater refractive changes encountered would be incompatible with life. Some authors have suggested that the refractive change is not limited to the crystalline lens, but involves also the aqueous and vitreous. The present author reports a personal case in which the change amounted to 5 D. in the direction of myopia. The patient had a previously undiagnosed diabetes.

Since the introduction of arsenobenzol and related drugs, there have been reports of a number of cases in which the toxic effects of the arsenical included a transitory myopia, sometimes considerable in amount. Some authors suggested that the change was due to an allergic spasm of accommodation, but this interpretation was converted by cases in which the condition was not overcome with a cycloplegic, and by the further fact that the complication was sometimes observed in patients of advanced age, the amount of whose accommodation was inadequate to explain such an increase of refraction. Vazquez Barriere reports a case in a man of thirty-three years, in which he attributes the myopic change to allergic edema of the crystalline lens. In a number of the cases reported the ocular change and the other toxic symptoms developed only after a number of consecutive doses of the arsenical drug.

Vazquez Barriere adds one to a number of previously reported cases in which similar myopic changes were observed after administration of heavy doses of sulfa drugs. The patient whose case is now reported was a woman of twenty-seven years. The temporary myopia of 5.50 D. in each eye diminished rapidly after withdrawal of the drug. Spasm of accommodation was excluded by comparing the amplitude of accommodation during the temporary myopia with that found after the eyes had returned to normal. Thus it appears that the myopic change must have been due to a change or changes in refractive index.

ORTHOPEDICS

By J. J. Ashby, M.D.
Doctors Building, Nashville

Pin Distraction as the Cause of Nonunion. Arthur G. Davis, M.D., Erie, Pennsylvania. The Journal of Bone and Joint Surgery, Vol. XXV, No. 3, July, 1943.

The purpose of this paper is to show the unique capacity for damage possessed by pin-distraction apparatus. Within the short period of nine months, no less than six flail nonunions of the lower tibia were referred to the orthopedic service of our local hospital. These cases were strikingly similar in appearance. This unusual similarity immediately suggested the existence of a special factor at work. From the history and serial roentgenograms it seemed that something more was at work to produce nonunions than the usual causes. All six cases had been subjected to pin distraction. Complete serial roentgenograms from the date of accident fortunately were available in all cases. It was immediately apparent from the films that overdistraction was attained and maintained throughout the critical callus-forming period.

A sliding bone-graft operation succeeded in each case in securing union without complications, and in average time. It is, therefore, clear that there was no question of lack of inherent bone-forming ability on the part of any of the subjects. The average time between the bone-grafting operation and unsupported weight-bearing was four and one-half months—the longest six months and the shortest three months. Each patient returned to his former occupation.

It is not intended here to enter the highly controversial subject of callus formation. Since, however, the present state of our knowledge leaves the process of bone repair still largely in the realm of inexplicable phenomena, one is restricted in the analysis of this unusual group of cases to the broadest generalities. Clinical and roentgenographic data seem more dependable than laboratory evidence. Assuming then only the usually accepted generalities governing callus formation—that is, the existence of humoral, cellular, and mechanical factors—the fact that union occurred promptly following ordinary bone-graft eliminates at once the humoral and cellular components, and focuses the fault on the mechanical factor alone. The question then resolves itself into an analysis of the unique mechanical factor, introduced by a method which depends upon one or more pins transfixing each main fragment with both unit assemblies connected by a distracting device. It is obvious immediately that a high degree of mechanical efficiency is introduced by such gear or screw mechanism pushing two skeletally fixed units in opposite directions. With ordinary manual manipulation the potential for disruption or overtraction is much less if not entirely absent. Skeletal traction on the distal fragment alone is more easily controllable. Open reduction with plating aims at hairline apposition of multiple bone-forming layers. In the latter case, there being no dead space between bone ends, the periosteum is less essential. The ever-present temptation with pin distraction is to overpull to attain apposition and alignment. It is quite impossible to feel the difference in an adjustment depending upon a gear as between just enough and too much force. The tensile strength of the periosteum is such that ordinary traction with hand or weights will not disrupt this essential membrane completely. On the other hand, pin distraction which is in common use today, particularly overdistraction, has this potential, and will cause complete horizontal disruption of the periosteum. Where there is overriding at the time of reduction the distracting force must overpull because angular manipulation is not used to engage the fragments. The difference is the difference between complete horizontal severance of the periosteum and the preservation of continuity of part of the periosteum.

The author presents data on six cases. He then discusses the warnings which have been given in several papers about the danger of overtraction. From the X-ray evidence and the evidence offered at the time of operation, he comes to the conclusion that the difference between these nonunions and those ordinarily encountered as a result of motion at the point of fracture is the status of the periosteum. At the time of operation the following observations were made:

1. There was not a vestige of callus formation over the bone ends of the two main fragments.

2. The material between the bone ends was entirely fibrous in nature.

3. A negligible ring of calcification was found a short distance back from the fractured surfaces.

4. There was no evidence of soft-part interposition in any case.

Assuming, then, that, besides appreciable separation of osseous substance, complete circumferential rents of an annual type have also occurred, it is self-evident that two different phases are permitted free access to the open space between the bone ends. It is also obvious that two different healing processes are present at every fracture. The one process, initiated by injury to the soft parts, has as its final goal fibrous tissue, and never undergoes ossification. This most primitive and universal healing process necessarily is in immediate juxtaposition to the fracture site. The other process, initiated by injury to the bone, creates bone under certain minimal conditions. It is generally accepted and a matter of daily clinical experience that contact of any one of the bone-forming layers, whether it be periosteum, cortex, cancellous bone, or endosteum, of one main fragment to any one similar or dissimilar osseous layer of the other main fragment, is sufficient for some kind of union, fragile though it may be, to occur.

Summary

1. Six cases of frank nonunion are shown to have

occurred as the result of the unique distraction possessed by pin reductions.

2. The irrevocable damage wrought by complete circumferential annual tears of the periosteum is shown.

3. An added factor productive of delayed union and nonunion is presented.

ROENTGENOLOGY

By J. Marsh Frere, M.D.
Newell and Newell Sanitarium, Chattanooga

Osteogenesis Imperfecta. William H. Bickel, M.D., Mayo Foundation; Ralph K. Ghormley, M.D.; John D. Camp, M.D., Mayo Clinic, Rochester, Minnesota. Radiology, Vol. 40, No. 2, 145.

The author's study is based on forty cases of osteogenesis imperfecta encountered at the Mayo Clinic during the twenty-one-year period, 1920 to 1940, inclusive. Because of the multiplicity of names and varied classifications which have appeared in the literature, an attempt has been made to group these cases into a suitable classification which includes all forms of this disease. This is as follows:

	Cases
Osteogenesis imperfecta	40
A. Hereditary type	11
(Otosclerosis may occur in any of these sub-groups.)	
1. Blue sclera and characteristic roentgenologic changes	3
2. White sclera and characteristic roentgenologic changes	1
3. Blue sclera and atypical roentgenologic changes	7
B. Nonhereditary congenital type	29
1. Blue sclera and typical roentgenologic changes	21
2. White sclera and typical roentgenologic changes	8

The term "osteogenesis imperfecta" seems adequate to cover this entire group.

Of the forty cases studied, eleven (27.5 per cent) were of the hereditary type. The most extensive family tree that could be traced led through four generations; brittle bones, blue sclera, and deafness were present in all generations.

The average age of the patients who had the hereditary type of osteogenesis imperfecta when seen at the clinic was thirty years; for those who had the nonhereditary congenital type the average age was 15.2 years when seen. There were twenty-one males and nineteen females.

In the entire group of forty cases 434 fractures were recorded, with an average of 9.2 fractures per case of the hereditary type and of 13.1 fractures per case of the nonhereditary congenital type. The fractures were about equally distributed between the left and right sides of the body. In order of frequency, the bones most commonly affected were the femur, humerus, and tibia. None of the bones was exempt from fractures. The least number of fractures for a patient was one and the greatest number recorded was forty-six. In seven cases the fractures were too numerous to record.

One patient in this series who gave a history of brittle bones among ancestors for four generations did not have blue sclera. The remaining ten patients had blue sclera.

Twenty-one of the twenty-nine patients with the nonhereditary congenital type of disease (72.4 per cent) had blue sclera.

Deafness occurred in five cases (45.4 per cent) of the hereditary type and in five (17.3 per cent) of the nonhereditary type.

Routine laboratory examinations of the blood and urine gave consistently normal results.

As a rule the skull yielded a typical roentgen picture which was fairly diagnostic of osteogenesis imperfecta. In the early and severe cases the bones which have an anatomically thin cortex were not dense. The bone visible appears to be made up of isolated islands. Early in the course of the disease the suture lines were difficult to discern, but later they were marked by the development of numerous wormian bones especially about the lambdoid and coronal sutures. An increase in the bitemporal diameter of the skull with decrease in its height was common and in two cases secondary platybasia was noted.

Numerous examples of softening of the vertebrae were seen, with flattening and wedging of the bodies and associated ballooning of the intervertebral discs. One angulated fracture of the sacrum was encountered.

The characteristic roentgen findings in long bones were a thin porotic cortex and a relatively large medullary cavity. The cortex was composed of a coarse, longitudinally laminated layers which could be seen clearly in the original roentgenograms. The finding was substantiated histologically. The porosis of the bones of the lower extremities appeared to be more severe than that in the upper extremities. This could be explained as an atrophy of disuse subsequent to many fractures and superimposed on already porotic bone. Small long bones, such as the fibula and ribs, sometimes appeared in the roentgenogram as mere whiplike wisps of bone.

The epiphyseal lines were usually fairly regular and the epiphysis was normal in contour, but large in proportion to the size of the diaphysis; in several cases, however, in this series both were grossly distorted and irregular. In these cases the condition was exceptionally severe and the changes might be interpreted as the result of weight-bearing or trauma to markedly affected epiphyses. Many epiphyses presented a foamy appearance, as if a wildly misdirected attempt had been made to produce normal bony trabeculations. Abnormally early closure of the lower humeral epiphysis was observed in two cases.

Bowing and angulation of the shafts of the long bones is the rule. This in many cases was due to the malunion of true fractures. In many bones, however, marked bowing without any roentgen evidence of previous fractures was found. In still other cases there was severe bowing with a pseudofracture (Looser zone) at the apex of the bow.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

Sodium Mandelate, an Intravenous Solution Available for Therapeutic Use. Grayson Carroll and Reese Coleman. Journal of Urology, August, 1943.

Mandelic acid is a valuable drug in the treatment of urinary infections, but it is not well tolerated by many patients, causing undesirable effects on the gastrointestinal tract. Experimental studies have shown that these untoward symptoms do not occur when the sodium salt is given intravenously.

In 1939 McMahon found that the intravenous injection of the calcium salts and ammonium salt of mandelic acid was toxic to animals, but that the sodium salt was well tolerated.

The object of this study was to determine whether man would tolerate the intravenous use of sodium mandelate and secrete it in sufficient concentration to be of therapeutic value.

A twenty per cent solution of sodium mandelate with a pH of 7.2 in twenty-five centimeters ampules was used. Six dogs were first given the injection to determine its safety. They showed no harmful effects. It was then given to patients.

In this investigation 105 injections were given to thirty-six patients and in no instance was any harmful effect noted. Urinalysis before and after the injections did not reveal any pathological changes, and no elevation in the nonprotein nitrogen was noted. The P. S. P. tests before and after treatment failed to reveal any toxic effect.

No untoward effect was noted during the injections except an occasional pain along the course of the vein. When the solution got into the tissues, there was some pain, but no sloughing.

The intravenous injections of twenty cubic centimeters will cause concentration of 1.03 grams of mandelic acid in 100 cubic centimeters of urine during the first four hours and a concentration of .52 grams the second four hours. This concentration meets therapeutic requirements; to maintain a proper concentration in the urine it is necessary to inject the drug every six to eight hours. Fluids were not withheld in these experiments. However, by limiting fluids to 1,200 cubic centimeters every twenty-four hours, the urinary concentration could be increased.

Send It to

LILY WHITE LAUNDRY

6-3118

Order Reprints From

McQUIDDY PRINTING COMPANY

Nashville, Tennessee

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.
President-Elect—Dr. Kyle C. Copenhaver, Medical Arts Building, Knoxville.
Vice-President for West Tennessee—Dr. J. W. Oursler, Humboldt.
Vice-President for Middle Tennessee—Dr. Burnett W. Wright, Nashville.
Vice-President for East Tennessee—Dr. J. C. Brooks, Chattanooga.
Secretary-Editor—Dr. H. H. Shoulders.
Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1946).
Dr. E. R. Zemp, Walnut Street, Knoxville.
Dr. B. L. Jacobs, Provident Building, Chattanooga (1946).
Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).
Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Jere L. Crook, Jackson.
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.
Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1946).
Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennesse (1946).

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H. P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	I. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S. Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	H. H. Edmondson, Clarksville	Jack Ross, Clarksville	B. H. Webster, Clarksville
Obion	M. T. Tipton, Union City		M. A. Blanton, Jr., Union City
Overton	W. M. Breeding, Livingston		A. B. Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood		W. W. Hill, Harriman
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			W. M. Dedman, Gallatin
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. W. L. Williamson, Memphis
Dr. L. W. Edwards, Nashville
Dr. E. G. Wood, Knoxville
Dr. A. M. Patterson, Chattanooga
Dr. J. O. Manier, Nashville

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville (1945)
Dr. A. F. Cooper, Memphis (1944)
Dr. Cecil E. Newell, Chattanooga (1946)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. E. A. Gilbert, Chattanooga (1944)
Dr. R. R. Crowe, Nashville (1946)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Lee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1946)
Dr. John B. Steele, Chattanooga (1946)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1946)
Dr. T. R. Ray, Shelbyville (1946)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. O. N. Bryan, *ex officio*, Nashville

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1948)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1946)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1946)
Dr. John M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. C. H. Sanford, Memphis (1944)
Dr. D. W. Smith, Nashville (1946)

COMMITTEE ON MEMOIRS

Dr. James O. Walker, Chairman, Franklin (1945)
Dr. D. W. Hailey, Nashville (1944)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1946)
Dr. J. L. Hankins, Johnson City (1946)

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. John S. Cayce, Nashville (1944)
Dr. J. B. Fitts, Chattanooga (1944)
Dr. M. L. Hefley, Knoxville (1946)
Dr. C. W. Friberg, Johnson City (1946)

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. W. R. Cross, Knoxville (1946)

COMMITTEE ON CANCER

Dr. C. H. Heacock, Chairman, Memphis (1944)
Dr. Ralph H. Monger, Knoxville (1946)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. Stanton S. Marchbanks, Chattanooga (1944)
Dr. Howard King, Nashville (1946)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. C. R. Thomas, Chattanooga (1944)
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1946)
Dr. George Inge, Knoxville (1946)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. Carrington Harrison, Nashville (1946)

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. E. T. Newell, Chattanooga (1945)
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Robert F. Patterson, Knoxville (1946)

COMMITTEE ON PREPAYMENT PLANS FOR MEDICAL AND HOSPITAL SERVICES

Dr. J. O. Manier, Chairman, Nashville
Dr. R. R. Brown, Nashville
Dr. J. C. Brooks, Chattanooga
Dr. M. S. Roberts, Knoxville
Dr. A. R. Porter, Jr., Memphis
Dr. W. D. Stinson, Memphis

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatic Society—
President—Dr. Frazier Binns, Nashville*
Vice-President—Dr. O. L. Von Canon, Chattanooga*
Secretary—Dr. Gilbert Eblen, Knoxville*

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland*
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis*
Vice-President—Dr. Franklin B. Bogart, Chattanooga*
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

---

*In service.

881

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 10

OCTOBER, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

CONVULSIONS UNDER ETHER ANESTHESIA. Murray B. Davis, M.D., Nashville, Tennessee 373
PENICILLIN RESEARCH COMMITTEE ISSUES FIRST CLINICAL REPORT 375
REPORT OF THE COMMITTEE ON PREPAYMENT PLANS FOR HOSPITAL AND MEDICAL SERVICES 377
THE MULTIPLE COST OF SOCIAL SECURITY, C. O. Pauley, President, Insurance Economics Society of America 382
OFFICE OF WAR INFORMATION—FEDERAL SECURITY AGENCY 386
TENNESSEE DOCTORS AND THE MILITARY SERVICE 388
EDITORIAL 394
DEATHS 402
NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE 402
NEWS NOTES AND COMMENTS 403
MEDICAL SOCIETIES 405
OTHER MEDICAL SOCIETIES 406
ABSTRACTS OF CURRENT LITERATURE 406
LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION 411
STANDING COMMITTEES 412
INDEX TO ADVERTISERS XXII

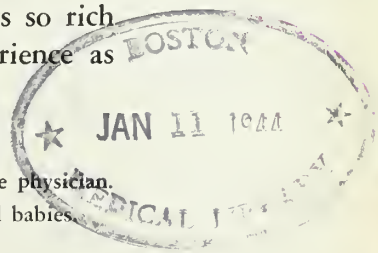
This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

BACKGROUND

Three Decades of Clinical Experience

THE use of cow's milk, water, and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

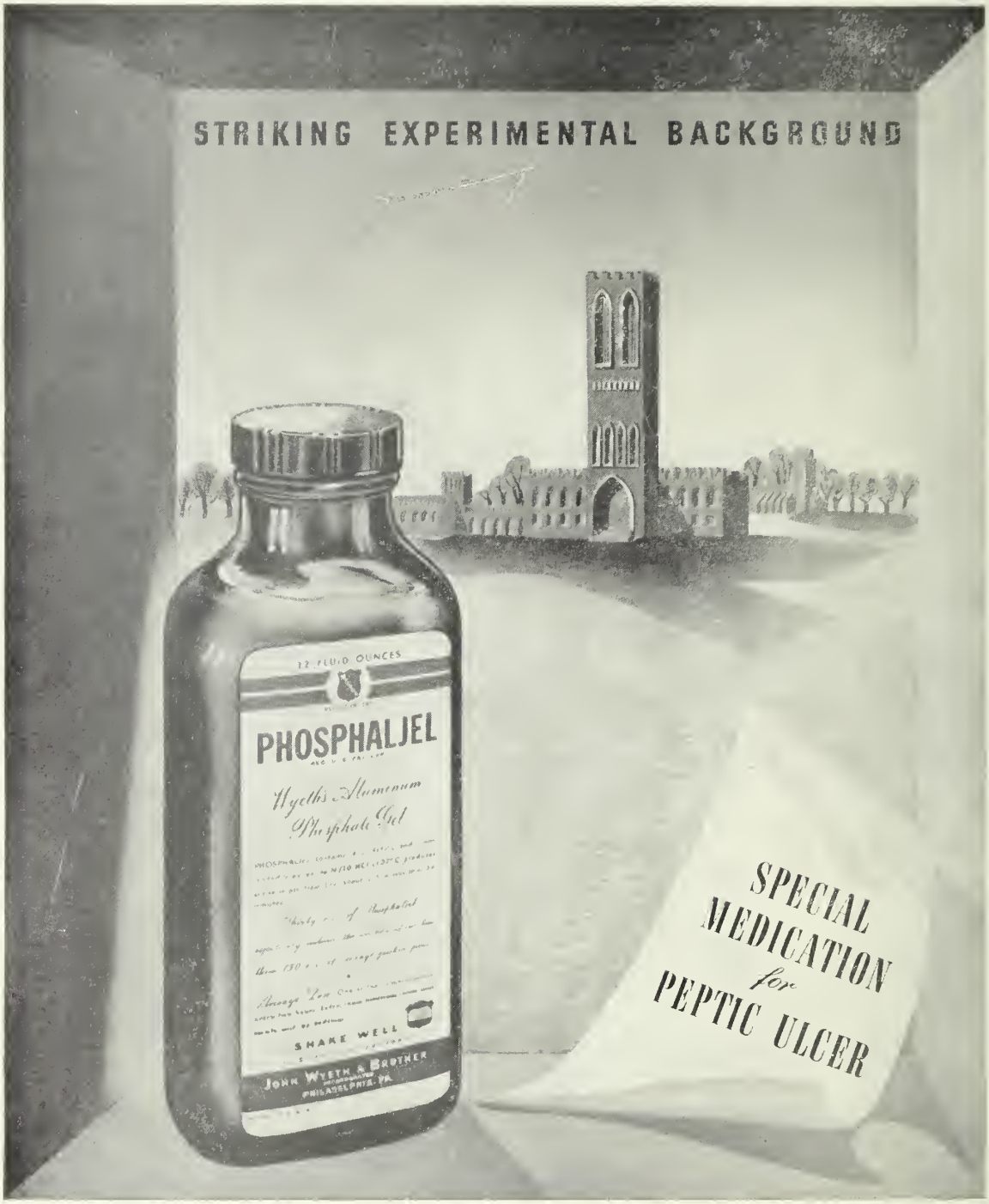
DEXTRI-MALTOSE No. 1 (with 2% sodium chloride), for normal babies.
DEXTRI-MALTOSE No. 2 (plain, salt free), permits salt modifications by the physician.
DEXTRI-MALTOSE No. 3 (with 3% potassium bicarbonate), for constipated babies.



These products are hypo-allergenic

DEXTRI-MALTOSE

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons. Mead Johnson & Company, Evansville, Ind., U. S. A.



Wyeth's Phosphaljel is supplied in 12-fluidounce bottles*

PHOSPHALJEL WYETH'S ALUMINUM PHOSPHATE GEL

Effective in the treatment of gastrojcjunal ulcer and other cases of peptic ulcer associated with a relative or an absolute deficiency of pancreatic juice, diarrhea, or a low phosphorus diet.

*Reg. U. S. Pat. Off.

Phosphaljel contains 4% aluminum phosphate.

JOHN WYETH & BROTHER • INCORPORATED • PHILADELPHIA

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI · OCTOBER, 1943 No. 10

CONVULSIONS UNDER ETHER ANESTHESIA*

MURRAY B. DAVIS, M.D., Nashville, Tennessee

The subject of "Convulsions Under Ether Anesthesia," or convulsions under any other general anesthetic, was wholly foreign to me until it happened to me while operating. In the fullness of my ignorance, I had always thought that general anesthetics, especially chloroform, were used to relieve convulsions, and that a convulsion could not happen to a patient who was deeply anesthetized. To say that it was a very disquieting experience was a mild way to express my feelings at the time.

The first record that I can find of this complication was in Manchester, England, in 1928. Several others were cited from England in the next few years. The first reported from this country was at Massachusetts General Hospital in 1933, when two cases were cited. The first cases reported happened in very hot weather. Hudson of London lays especial emphasis on the fact that "the day was hot and thundery; the operating room was stuffy; that twenty-five minutes after the onset the patient's axillary temperature was 106. All measures of resuscitation failed." He reports another case in a child, age two years, in which carbon dioxide and oxygen were useless, but chloroform halted the convulsions and the patient recovered.

Bailey of London says that, although having observed anesthesia by ether almost daily for twenty-five years, it is only in this year, 1940, that he saw a case of serious convulsions. This was in a girl, age thirteen, with whom all efforts failed. She was given carbon dioxide and oxygen, intravenous evipal, and finally intracardiac injections of coramine—all to no avail. He comments on the fact that most of these cases seem to occur in hot weather, yet says that his fatal case occurred in January during exceptionally cold weather.

Bailey reports another case which occurred during cold weather. In this case evipal was given intravenously early and it recovered. He goes on to say that, although professional anesthetists agree that evipal should not be given to a deeply anesthetized patient, he feels that it is the drug of choice if given early, and that since he has had two cases occurring during very cold weather he doubts that any relation exists between convulsions and hot weather.

Etiology

The cause of ether convulsions is obscure; no one factor has as yet been found. A combination of several is suggested, such as the youth of the patient, presence of acute toxemia or sepsis, too deep anesthesia, high external temperatures, and lowered blood calcium and chlorides. It definitely cannot be blamed on impurities in the ether, for specimens of the ether that was used have

*Read before the Middle Tennessee Medical Association, Columbia, Tennessee, November, 1942.

been examined chemically and found to be impurity-free. Also there are many records where a case had convulsions and where the remaining ether in the can was used successfully on a case immediately following the one that convulsed.

The May Clinic says: "Ether convulsions in children are attributed to a neurotoxin or poison produced by some strain of streptococci in amounts insufficient to cause spasms in the absence of anesthesia, but which, in the course of a general anesthetic, suffice to incite muscular spasms characteristic of this condition." They have swabbed the nasopharynx and made skin tests with different antiserums, injections being made intracerebrally into rabbits. The animals developed convulsions and congestion of the gastrointestinal tract. They attribute these convulsions to be due to a combination of this neurotoxin and a low concentration of serum calcium.

Treatment

The treatment of this condition is as varied as are the theories of its cause. Some authors believe it is due to a lowered blood calcium and recommend ten cubic centimeters of ten per cent solution of calcium gluconate intravenously and report many recoveries. Others recommend switching to chloroform, and these, too, have recoveries as well as fatalities. Others adhere to carbon dioxide and oxygen mixture. One man went so far as to give his patient a spinal anesthetic to stop the opisthotonos. The majority of the writers recommend the barbiturates, if possible, intravenously, but insist that these should be given early in the convulsions. This proved effective in my cases.

Cases

Nancy St. C., white female, age four, admitted to St. Thomas Hospital in February, 1938, with diagnosis of acute appendix. White count, 14,600; temperature, 101. McBurney incision. Very acutely inflamed appendix was removed. As I was closing the peritoneum, the patient started generalized twitching and then began having violent convulsions. Dr. James Overall was present, who gave sodium luminal intravenously and started saline clysis. Within a few minutes the convulsion ceased. Her convalescence was uneventful.

Elizabeth R., white female, age seven, admitted to St. Thomas Hospital in May, 1941, on a very hot day. Temperature, 100; white count, 8,000. McBurney incision. Acutely inflamed appendix removed. Patient developed mild convulsions about midway of the operation. Dr. Milton Lewis was present and administered sodium amytal, which controlled her convulsions and allowed the operation to be completed. Twelve hours following the operation patient broke out with a deep rash, probably toxic in nature. This cleared up in two days, and her convalescence was otherwise uneventful.

BIBLIOGRAPHY

British Medical Journal, August 17, 1940, 2: 222-223.

British Medical Journal, October, 1938, 2: 863-864.

British Medical Journal, October 24, 1936, 842.

Guys' Hospital Report, October, 1936, 86: 461-475.

Staff Meetings, Mayo Clinic, January 17, 1940.

PENICILLIN RESEARCH COMMITTEE ISSUES FIRST CLINICAL REPORT

It Is a Remarkably Potent Antibacterial Agent, National Research Council Group Declares from Study of 500 Cases

Penicillin is a remarkably potent antibacterial agent which can be given by injection into a vein (intravenously), into a muscle (intramuscularly) or by local application, but it is ineffective when given by mouth, the Committee on Chemotherapeutic and Other Agents, of the Division of Medical Sciences, National Research Council, declares in *The Journal of the American Medical Association* for August 28 in a statement outlining the findings from a study of 500 cases of infection treated with the substance. The committee is composed of Chester S. Keefer, M.D., Boston, chairman; Francis G. Blake, M.D., New Haven, Connecticut; E. Kennerly Marshall, Jr., M.D., Baltimore; John S. Lockwood, M.D., Philadelphia; and W. Barry Wood, Jr., M.D., Baltimore.

Other conclusions from the study reported by the committee are that following intravenous or intramuscular injection penicillin is excreted rapidly in the urine, "so that in order to obtain an adequate amount of potent material in the circulating blood and tissues it is necessary to inject penicillin continuously or at frequent intervals; that is, every three to four hours.

"Penicillin has been found to be most effective in the treatment of staphylococcic, gonococcic, pneumococcic and hemolytic (blood destroying) streptococcus infections. It has been disappointing in the treatment of bacterial endocarditis (inflammation of the membrane lining of the heart). Its effect is particularly striking in sulfonamide resistant gonococcic infections.

"While the dosage schedule requires additional investigation, it seems clear that the average patient requiring intravenous or intramuscular injections for serious staphylococcic infections requires a total of between 500,000 and 1,000,000 Oxford units, and the best results have been observed when treatment is continued for at least ten days to two weeks. At least 10,000 units should be given every two to three hours at the beginning of treatment, either by continuous intravenous injection or by interrupted intravenous or intramuscular injections.

"Satisfactory results are obtained in sulfonamide resistant cases of gonorrhea following the injection of 100,000 to 160,000 units over a period of forty-eight hours.

"Patients with pneumococcic pneumonia frequently recover following the use of 100,000 units given over a period of three days. This is especially important in sulfonamide resistant pneumococcic infections. . . .

"Toxic effects are extremely rare. Occasionally chills with fever, or headache and flushing of the face, have been noted. . . ."

The Oxford unit, so called because the first extensive work on penicillin was done at Oxford University, England, is that amount of penicillin from a particular batch which will destroy a given number of staphylococcus aureus (pus-producing organisms). Different batches of penicillin vary in the number of Oxford units they contain. In the September issue of *Hygeia, The Health Magazine*, E. K. Gubin, Washington, D. C., explains that 160 quarts of mold culture will yield ten grams of penicillin, which is sufficient for about one hundred standard doses and that it has been estimated that under present manufacturing conditions 1,000 grams of penicillin would cost nearly $50,000 to produce.

The report of the committee is based on the studies conducted by twenty-two groups of investigators accredited to the committee. As has been pointed out in recent announcements, the amount of penicillin that can be produced is not sufficient fully to meet the needs of the armed forces, thus little, if any, of the substance is likely to be available for civilian use for some time.

The committee says that since the question of adequate or optimum dosage of penicillin has not been clearly defined, the objective in treatment should be the maintenance of a sufficient concentration of

penicillin in the blood to inhibit completely the growth of the individual infecting organism.

The committee points out that the reason that the substance is ineffective when given by mouth is that investigators have shown that the gastric juice destroys penicillin rapidly at body temperature, the destructive action appearing to be due to hydrochloric acid.

Of particular importance is the declaration of the committee regarding strains of various organisms that are resistant to penicillin. The committee says that "It is of considerable interest that penicillin fast strains of pneumococci are susceptible to the sulfonamides and that sulfonamide resistant strains of pneumococci are susceptible to penicillin. Moreover, C. M. McKee and C. L. Houck have shown that an increase in the resistance of organisms to penicillin is associated with a proportional loss of virulence, an observation that is in striking contrast to the retention of virulence by sulfonamide resistant cultures.

"Obviously, more information is needed concerning penicillin resistant strains and their mode of production, since it may aid one in interpreting the clinical results or failure. . . ."

Regarding the results of treatment of staphylococcus aureus infections with bacteremia (infection of the blood stream), the committee says that sixty per cent of ninety-one patients recovered or improved under treatment so that recovery followed later. Death occurred in thirty-seven per cent and no effect was observed in three per cent.

"In a group of such infections in which the fatality rate is so high," the committee says, "these results are very impressive, since the over-all fatality rate in this group without penicillin or sulfonamides is usually about eighty-five per cent. . . . The failures only serve to emphasize the great importance of early diagnosis and immediate and adequate treatment. . . ."

Of fifty-five patients with osteomyelitis (inflammation of the bone marrow or the bone and marrow), forty-eight recovered or improved and seven showed no effect. However, it is pointed out by the committee that final statements concerning the ultimate outcome of these cases cannot be made until several years have passed.

Of 129 cases of gonococcic infection, all of which were sulfonamide resistant, 125 were free from symptoms and were bacteriologically negative within nine to forty-eight hours after treatment. These findings lead the committee to declare that "Here, then, is a most potent weapon in the treatment of sulfonamide resistant gonorrhea, and it is not too much to predict that penicillin will prove to be one of the most effective agents in the treatment of a disease that causes great ineffectiveness in the armed forces and in the civilian population."

REPORT OF THE COMMITTEE ON PREPAYMENT PLANS FOR HOSPITAL AND MEDICAL SERVICES

At the last meeting of the House of Delegates of the Tennessee State Medical Association in Nashville on April 11, 1943, there was introduced and passed a resolution directing the Board of Trustees of the Tennessee State Medical Association to appoint a Committee on Prepayment Plans for Hospital and Medical Services. This resolution further instructed the committee, when appointed, to study and consider all such existing plans in this country and after so doing to formulate a report which was to be published in the JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION well in advance of the next annual meeting of the House of Delegates, covering any and all angles of these problems which might enable the House of Delegates at its next meeting in 1944, after having studied this report, to take whatever action it might see fit in reference to a prepayment plan for Tennessee. Shortly after the meeting of the House of Delegates, the Board of Trustees appointed the following committee: Dr. J. O. Manier, chairman, Nashville; Dr. R. R. Brown, Nashville; Dr. J. C. Brooks, Chattanooga; Dr. M. S. Roberts, Knoxville; Dr. A. R. Porter, Jr., Memphis; Dr. W. D. Stinson, Memphis.

Realizing the enormity as well as the uncertainty of the problems presented by plans of this kind, before any meeting of the committee was held, individual members of the committee were each furnished with all of the data that could be secured from the dozen or more plans now in operation in different sections of the United States, in order that they might have the opportunity to study and digest these plans and select from them those principles which might seem best adaptable to the needs of the population in such a state as Tennessee. Also in order that the committee might have, as near as possible, firsthand knowledge as regards the operation of many of the existing plans in this country, three members of the committee attended a meeting of the Council on Prepayment Plans held in Chicago early in June, 1943.

On August 22, 1943, a meeting of the committee was held in Nashville. After considerable discussion and deliberation, it was decided that the most constructive action that could be taken by the committee would be to approve certain broad general principles underlying prepayment plans for hospital and medical services gathered from the experience of similar plans now in operation in other states. In the judgment of the committee, these principles should form the foundation for a successful plan.

The report which follows represents these fundamental principles. It also contains certain details of management which have been found to be essential to the successful operation of plans in other states and these are offered merely as suggestions to the permanent committee which may be established by the Tennessee State Medical Association should its House of Delegates see fit to approve and authorize the establishment of a Prepayment Plan in Tennessee.

Your committee felt itself entirely justified in approving, in principle, both prepayment hospitalization and prepayment medical services where proper conditions are met. It was the unanimous opinion of the committee that such approval is not only economically sound from the standpoint of enabling individuals and families in the lower income brackets to budget their income so as to meet the unusual expenses that arise from time to time incident to illness. Your committee feels also that the establishment of plans covering these two services on a voluntary nonprofit basis offers the best opportunity for safeguarding both the public and the profession from the establishment of a political bureaucratic form of control of both hospitals and medical practice.

The establishment of a prepayment hospitalization plan, of course, must have its initiative from the different hospitals in the State of Tennessee, in all probability, through their state organization—the Tennessee State Hospital Association. The medical profession of itself could not in any sense directly originate or organize such a plan. However, the committee did feel

that the profession at large in this state, through the approval of its controlling body, the House of Delegates, could be of great aid in securing the establishment of a hospitalization plan by requesting the Tennessee State Hospital Association to give due consideration to the need in this state for such a plan.

The individual members of the Tennessee State Medical Association could interest as many of the accredited hospitals over the state in participating in such a plan, if and when it is inaugurated.

After a careful study of all existing prepayment hospital plans in this country, the committee felt no hesitancy in placing its stamp of approval on the so-called Blue Cross Plan for Prepayment Hospitalization which is now in operation in many states and which in every way seems to meet all of the criteria necessary to the successful operation of such a plan because (1) participation in it is voluntary, (2) it is entirely nonprofit, and (3) it has behind it a national organization in the person of the American Hospital Association which not only offers aid and advice in the establishment of subsidiary state organizations, but, in addition, demands of these conformity to the highest principles of ethics in the conduct of their business before placing its stamp of approval upon them.

In the course of our study it was found that medical service features are embraced in some prepayment hospital plans. This is mentioned to be condemned.

Since the meeting of our committee, in August, the Tennessee State Hospital Association has been contacted and requested to give consideration to the establishment of a Prepayment Hospitalization Plan in Tennessee under the Blue Cross Plan, and we are informed that at a meeting of the Hospital Association to be held early in October this problem will be discussed and, in all probability, some action will be taken in reference to it.

Our interest in a prepayment hospitalization plan goes beyond its organization *per se* in that the committee found, after careful study, that the experience in practically all states where prepayment plans for medical services are now in operation has shown the necessity of joint activity between prepayment hospitalization and medical service plans for savings in both sales and office expense. This does not even imply that this joint activity would in any sense mean that one plan should have any direct control over the management of the other. They can be more economically operated jointly. Despite this needed liaison these two services should always remain entirely distinct in their administrative, executive, and financial control and operation.

Should the House of Delegates elect at its next meeting to authorize the establishment of a Prepayment Plan for Medical Services in the State of Tennessee the first decision that will have to be made in the establishment of such a plan will be a legal one—*i. e.*, whether an enabling act by the charter can be taken out under the present legislature should be secured or whether a broad public welfare act passed by the legislature of 1889 and still in effect.

It was the opinion of legal counsel present at the committee meeting that the welfare act was so broad in its scope that a charter could be taken out under its provisions legally authorizing the establishment and operation of such a plan.

At the present time qualified attorneys are studying this problem, and if it is found feasible to follow this line of procedure then a tentative charter will be drawn up and presented to the House of Delegates for its consideration. Such a procedure, if legal and possible, would greatly facilitate the organization and operation of the plan both in time and in effort in that we would be relieved of the responsibility of having to secure the passage of an enabling act by the legislature; and, further, it would not be directly under the control of any department of the state government so long as the plan is operated on a sound, ethical, and business basis. It is further the opinion of counsel who have had experience with legislative matters that it would be none too simple to secure the passage of the desired enabling act, embracing the principles which the Tennessee State Medical Association would be willing to approve.

It is the opinion of the committee that any corporation organized for the purpose of operating a prepayment plan for medical services, whether authorized by a special act of the legislature or operated under a charter taken out under the General Welfare Act of 1869, should contain the following general principles at least:

1. That the corporation organized should be without capital stock, not for profit, but for the purpose of establishing, maintaining, and operating a voluntary nonprofit prepayment medical service plan, having for its primary and major purpose the furnishing of adequate and satisfactory medical service to citizens in the low-income groups at a cost which they could well afford to meet by voluntary allocation of a small percentage of their income for this purpose.

2. Any prepayment medical service plan should, in so far as possible, be on a statewide basis and placed under the control of a central executive committee, the majority (preferably about two-thirds) of whom should be licensed physicians in Tennessee, elected and appointed by the Board of Trustees of the Tennessee State Medical Association, and the remainder of whom should be laymen selected by the Board of Trustees of the Tennessee State Medical Association because of their special fitness for, and interest in, such a plan.

3. Any prepayment medical plan should be clearly differentiated from anything pertaining to insurance of any kind. It is not contemplated that a subscriber to the plan purchases anything other than a guarantee of payment for medical services rendered in keeping with the rules and regulations adopted by the Executive Committee and stated in the contract sold;

4. That the central Executive Committee, mentioned above, would have the power at its discretion to offer either a limited or unlimited contract and from time to time to alter the contract offered in this respect as it might deem wise and fit;

5. That any licensed physician in good standing in Tennessee would become an eligible physician to practice under this prepayment plan if and when he accepted the rules and regulations adopted by the Executive Committee covering such practice;

6. That absolute freedom of choice of physician should be guaranteed to each voluntary subscriber from the number of physicians who agree to engage in and accept such practice under such rules and regulations as may be established by the Executive Committee of the plan;

7. That there should be no restrictions on methods of treatment or prescribing on the part of participating physicians other than those enforced by the organized medical profession;

8. That provision should be made so that the Executive Committee of the plan may receive and accept payments or donations from governmental agencies, private agencies, corporations, associations, groups, or individuals covering all or part of the cost of the contract entered into between the corporation and its voluntary subscribers;

9. That the corporation and its officers should be given the right and power to determine after investigation the income level of the voluntary participants under the plan.

10. Should it be found legally necessary to have an enabling act to authorize the establishment and operation of a prepayment medical service plan, it would, in all probability, be necessary to place it under the control and supervision of one of the departments of the state government. In that event it is the opinion of the committee that it would be wise for the enabling act to provide that the plan be placed under the supervision of the State Commissioner of Insurance. However, it is still the opinion of the committee, if such a plan could legally be organized and put in operation without having to be under the head of any state department, that its operation would be greatly simplified. Likewise, it was the opinion of the committee that an enabling act, if necessary, should exempt the corporation from state, city, and county taxation and also establish the matter of fees, if any, to be paid to the State Insurance Commissioner. Further that the enabling act should clearly define the proposed plan as a nonprofit organization and specifically exempt it from the laws of

Tennessee governing insurance and other corporations operating for profit.

After adopting these broad general principles to serve as the governing foundation for the proposed plan, the committee spent some time in discussing certain details of the operation of the proposed plan which would of necessity have to come under the heading of by-laws governing the corporation when once it is organized by an enabling act or under the general welfare corporation law existent. It was the unanimous opinion of the committee that experience elsewhere had shown that prepayment medical service could be sold only on a group basis, as had been found necessary in all other states, where such plans are now in operation and that of course in its beginning it might be found necessary to a large extent to restrict the operation of the plan to the half dozen or more larger cities in the state. However, it was also the opinion of the committee that Tennessee is rapidly becoming a semi-industrialized state and that there are already adequate industries in many of the smaller county seats to more than justify an effort being made to set the plan in operation in these communities at an early date after its beginning.

Also it is felt by the committee that the Executive Board should be advised to make payment to the participating doctors on the unit plan. It has been found in other states that the financial stability of the plan is preserved and a disastrous deficit avoided by such a policy.

No matter how such a proposed plan might be authorized by law, the committee realizes that any such prepayment plan as it is envisioned would of necessity need a reserve in advance of beginning operation to meet early organization and other expenses as well as to assure the fulfillment of its contract to the voluntary subscriber. Some time was spent in discussion by members of the committee as to the amount of this reserve and as to its possible sources. It was the general opinion of the committee that the reserve should be from ten to twenty thousand dollars, and that this reserve, if possible, should be raised by voluntary subscriptions on the part of the doctors throughout the state who might be broad-minded and unselfish enough to wish to contribute and become a part of the proposed plan in an effort to protect the health of the low-income groups in our state, and at the same time save the profession of medicine and sick people from the encroachment of existing and proposed bureaucracy.

There was also some discussion on the part of the committee as regards the limitation of the income group to whom such a prepayment plan should be offered, and though there was no definite action taken, the general impression seemed to be that it should be somewhere within the range of that sponsored by Pennsylvania and Ohio which is as follows:

1. For a single person $1,500 per annum.
2. For a person with one dependent from $2,000 to $2,400 per annum.
3. For a person with more than one dependent from $2,400 to $2,800 per annum.

In conclusion, your committee realizes that it has merely scratched the surface of the difficulties to be encountered in organizing and setting into motion a prepayment plan for medical services. However, it does feel that the time has come when the Tennessee State Medical Association should take some action in establishing such a plan and that steps should be taken by the House of Delegates at its next meeting to instruct the Board of Trustees to appoint a permanent committee with power to create an active organization for this purpose. Furthermore, we are deeply impressed that the establishment of a prepayment plan of hospitalization is a *sine qua non* to the establishment and operation of a plan for premedical services, and that even then no such plan can successfully operate unless first the individual members of the Tennessee State Medical Association acquaint themselves with the details of operation of such plans as practiced elsewhere and, second, sell themselves on the necessity of such a plan in this state and become willing to cooperate in it wholeheartedly, following the lead of the central committee which may be placed in charge of it, whether or not every little detail of its operation may seem to them to be the best possible. In this day of danger from

political bureaucratic interference in the practice of medicine and the obvious desire of certain elements in the National Public Health Service to gain control over the practice of medicine, unless individual members of the medical profession and individual hospitals over this state unite in an unselfish effort to make the public realize that our main interest is to offer to them the best possible service in the world irrespective of income, we can look forward only to regimentation and all of its attendant ills and evils.

In considering these particular problems your committee feels that both doctors and hospitals should cease being provincial—only concerned with local problems and self-interests—and develop a broader perspective and visualize not only the present, but the future welfare of the public, the profession, and the hospitals.

In this day of world-wide chaos it is true that all doctors are busier than they might wish to be and that in most communities hospital beds are at a premium, but both doctors and hospitals should clearly realize that this situation is an artificial one in that the war will not last forever, and when its attendant artificial conditions subside we will be back where we were several years ago, and that then the time will be ripe for the political bureaucrats in Washington to endeavor to place us in a position which will be most unpleasant. If we are to avoid this terribly unpleasant situation, now is the time to begin to plan for the future in order that we in this state at least may have something better to offer to the public than regimentation of medical service and political control of doctors, hospitals, and patients as well.

THE MULTIPLE COST OF SOCIAL SECURITY*

C. O. PAULEY, President, Insurance Economics Society of America

I am engaged in the business of Life, Accident, and Health Insurance, and if I am to be governed by the standards prevailing in Washington, any ideas I might have with regard to social insurance should be disregarded because of personal interest, and any knowledge I may have acquired by experience over the last forty years should be ignored. Let me make it clear, at the beginning, that any views I may express with regard to compulsory government insurance are not based upon any unfavorable effect that it might have upon my business, but are founded solely upon the effect which I believe such a program as proposed by Sir William Beveridge or the Wagner Bill will have upon our economic, social, and political future. If compulsory insurance is a good thing for the American people, it would be just as foolish for private insurance to oppose its development as it would be for employers and labor to oppose the use of laborsaving machines. No one business or industry can, or should, stand in the way of the welfare of the whole people.

I must have the type of mind that in these days would be classed as reactionary, for when any program of this type is suggested, I instinctively ask, "What is it going to cost?" While Sir William Beveridge does make a very detailed estimate of the cost of his program in England, our own social planners dismiss the question of cost with a mere wave of the hand. The National Resources Planning Board, in discussing its social security recommendations, says: "We have passed the stage when financing the program need be more than a technical problem. If we measure the physical and intellectual stature of our people and our vast national resources, financial problems need be of no hindrance. Their complexity need not stand in our way. We require only the will and the courage to make full use of our national resources." It is difficult to reduce the cost of the Beveridge Plan to the cost of a similar plan in the United States because of the great difference in conditions and the higher cost of living. The Beveridge Plan provides for a mere subsistence level of benefits. It has been estimated by very competent research men that a similar proposal giving a subsistence level of benefits would cost the United States approximately fifteen billion dollars per year.

The proposals of the National Resources Planning Board, the Social Security Board, and the Wagner Bill are based upon an entirely different theory and within certain upper and lower limits, the benefits are determined by the income upon which an individual and his employer have paid taxes, or, as the Wagner Bill puts it, "have paid contributions." Except for the Wagner Bill's proposed contributions of twelve per cent of pay rolls and seven per cent of the market value of the services of the self-employed, and similar vague statements of percentages from Secretary of Labor Perkins and the members of the Social Security Board, we have no estimate of the cost of the proposed social security plan for this country. The Social Security Board has a Bureau of Research and Statistics employing 120 people and costing $258,000 in salaries and traveling expenses during the last fiscal year, but if they have issued any detailed discussion of costs such as was prepared by the actuary of the British government as a part of the Beveridge Plan, it has not come to my attention. During the last fiscal year, the two per cent tax on wages for old age and survivorship insurance amounted to 895.6 millions. It is estimated that for the fiscal year just ending this will run considerably over one billion dollars. On that basis the twelve per cent tax proposed in the Wagner Bill would produce revenue in excess of six billion dollars from those under the present act. In addition to this, it is proposed to bring under the act many employed persons not now covered, and to place a tax of seven per cent

*Address at the Social Insurance Legislative Forum, International Association of Insurance Counsel, Chicago, June 28, 1943.

upon all of the self-employed, numbering twenty to twenty-five million. This is not all of our social insurance program, however, because the railroad employees of the country, two million in number, have a separate board and insurance system of their own. Neither does it include federal, state, and municipal employees, estimated at 6.5 million, most of whom are now covered under some retirement fund and other insurance benefits, and will eventually be included in any federal plan. I think it is perfectly safe to conclude that if the Wagner Bill were enacted into law, the initial tax under all of these programs would exceed ten billion dollars annually. This is only at the beginning of the program, however. Eventually the most costly part of the program will be the old age and survivorship insurance, the cost of which will finally be an additional five billion dollars per year or more.

Neither the Beveridge Plan nor the Wagner Bill attempt to assume the full burden of old-age annuities at the beginning. Just why they assume that this added burden can be absorbed after twenty or twenty-five years is not explained. Not only will practically all of our population over sixty-five then be eligible for old-age annuities, but by that time the proportion of our population which is over sixty-five will have greatly increased. I think a conservative estimate is that when our present old age and survivorship insurance is in full operation, assuming there is no increase in benefits, it alone will cost twelve per cent of the pay rolls. The Wagner Bill assumes three per cent for medical and hospital care, and five per cent for unemployment and disability benefits. Both of these assumptions I believe to be too low. But in any event, the minimum cost when the program is in full operation would be twenty per cent of pay rolls of employees and self-employed up to $3,000 per year.

The nation, like an individual, has just so much money to spend, all of which must come from the labors and enterprise of its people. If we want a social security program of this magnitude more than we want other things, perhaps we can have it. In considering this program, however, we must bear in mind that there are certain other obligations which must come first. When this war is over, we shall probably have a national debt of 300 billion dollars or more. If we assume the interest on this debt is only two per cent, and it is amortized over a period of fifty years, it will take 9.5 billions a year in taxes. We must finance the rehabilitation of most of the world after the war, and for a time must feed and clothe millions outside our own borders. Recently there appeared in the newspapers a report of the Investment Bankers' Association in which it was estimated that our own industrial development would require five billions a year for the first three years after the war. Our people want a constantly improved and extended system of education, we want more parks and recreational facilities, we want a great many things which are not in themselves productive, and in addition, we must support the vast number of municipal, state, and federal employees, and the costs of the services which we hope they will render us. All of this must be supported by free enterprise. You can take only so much in the way of taxes or contributions from the results of free enterprise without "killing the goose that lays the golden egg." Can our free economy, in addition to all the other burdens it must carry, support a compulsory government insurance scheme which will impose a tax of twenty per cent or more on pay rolls and take fifteen to twenty billions from the earnings of those who work and produce and redistribute it to those who do not work and who are not productive?

If we embark on a social insurance scheme, the cost of which proves to be too great for our national economy to sustain, just one of two things will happen—either the actual benefits will be reduced by an inflation which reduces the purchasing power of the dollar with all of its attendant evils, or, as is more probable, the failure of free enterprise to give full employment and to sustain the social security burden will result in a demand that the government take over more and more of the functions now performed by private enterprise until we have a completely socialized economy.

But the cost will not be entirely economic. It is even more difficult to estimate the social costs in the short time allotted to me. I cannot go into detail with regard to all the social ramifications of such a program. What will be the effect upon the character and the enterprise of a generation which knows that from before its birth in a government hospital, until it is laid away in the grave, a benevolent governmental bureau will pay the costs of being born, the costs of its education, will supply its recreational needs, will furnish medical services and hospitalization in illness, provide an income during unemployment and sickness, and a pension if permanently disabled or retired by old age? What becomes of the incentive to rise above the conditions in which the individual is born? Will it not result in the rise of only a few who are born with great inner driving power and an unusual ambition, while the great mass of our people settle down on a dead level of security such as prevails in most European countries? Is it not possible that we may overreach ourselves in our efforts to give every man complete freedom from want and from fear without any responsibility on his part? It was the desire to achieve freedom from fear and from want for themselves and their families which urged men on from our eastern coast to settle the wilderness and the prairies and has made our nation what it is today. Perhaps the striving for the goal has been and is more important in the life of a nation than the goal itself.

Compulsory social insurance will also have its political costs. Here again I can only touch one phase of the subject. During the last quarter of a century, the federal government has been increasing its powers and its functions at a rapid rate. Out of this has grown a bureaucracy which is increasing at an amazing speed. It is not wholly a product of the present administration, but its growth during the past decade has been tremendously accelerated. I think few of us realize the danger involved in this rapid growth of bureaucracy. It is not confined to Washington, but is spreading all over the country. The State of Ohio has 25,000 state employees. There are 90,000 federal employees in the state. Massachusetts has 21,000 state employees. There are 129,000 federal employees in the state. Pennsylvania has 44,500 state employees and there are 215,000 federal employees in the state. Wyoming operates its state government with 1,100 state government employees, but there are 6,200 federal employees in that state. This does not include the armed forces. In addition to all of these various governmental bureaus, each vying with another for an increase in its importance, the amount of money it can spend, and the number of people it can employ, we have more recently developed hundreds of governmental corporations, some of which are not even audited by the treasury or any other governmental department. The American bureaucrat seems to have a peculiar genius for hiring additional employees. The OPA has 2,700 lawyers. England, which has a price control organization similar to the OPA, has managed to struggle along successfully with just ten members of the legal profession. I am indebted to Senator Harry F. Byrd of Virginia for these facts and figures, and he calls this growing bureaucracy a Frankenstein Monster. But our existing bureaus will be completely overshadowed by a bureau which will be necessary to administer a social security system such as is contained in the Wagner Bill. The Social Security Agency has over 31,000 employees and already the Social Security Board has over 13,000 employees, which does not include the unemployment compensation administered by the states. The greater part of these employees are engaged in administering the old age and survivorship insurance, which paid beneficiaries only 110 million dollars in the last fiscal year. The Wagner Bill would empower the Social Security Board to take over the state unemployment agencies, to put on a system of benefits for total and permanent disability, temporary disability, and hospital and medical care. This would necessitate a federal bureau with representatives in every city, village, and hamlet in the country who would go into every city and farm home. I do not need to point out the political implications of such a bureau upon the tender ministrations

of which every individual would at one time or another during his lifetime be dependent.

I have never been very much afraid we would lose our liberties to a man on horseback. At worst, that would be only a passing phase, dependent upon the health and life of one man. But bureaucrats go on forever. Change of administrations may impede their advance for a time, but their steady progress to more and bigger and better bureaus, and more bureaucrats, goes steadily on. If we lose our liberties, it will be to millions of federal employees who more and more are regulating our individual lives and curtailing our individual freedom. The American people are just beginning to sense the danger in this vast governmental organization. Will they be aroused in time to prevent its getting a strangle hold upon us?

You may say, as they told me down in Washington at the Social Security Board, "You don't want the government to do anything." I do want the government to do everything that cannot be done by private enterprise or that it can do better than private enterprise, and which will not impede or destroy private enterprise. Impelled by the economic and political pressure of the early 1930's, we embarked upon a system of compulsory government insurance limited to old-age annuities, benefits for surviving widows and children and unemployment compensation. These have operated only during the period of increasing employment. They have not existed long enough to prove themselves or to indicate what their ultimate effect upon our economy will be. How will they operate in a time of depression? I believe they should be given time enough to prove themselves before venturing upon the much more difficult and costly fields of disability, medical care, and hospitalization. I believe in social security, but I want to see it achieved by the efforts of the individual as far as possible by his own initiative. I believe the government has a great place in such a program. Any system of social security, private or public, is based upon nearly complete employment. Even Sir William Beveridge assumes that no system of social insurance can survive prolonged mass unemployment. And the government should bend every effort to prevent periods of mass unemployment in private enterprise and to make possible at all times profitable employment in private enterprise for all but a small proportion of its employables. We have made only a small beginning in conservation of health and the prevention of preventable diseases. The expenditures of the government for health conservation and the elimination of communicable and other preventable diseases should be greatly expanded. The governmental efforts should be directed primarily at the causes of unemployment, accidents, and diseases, and to the rehabilitation of those who have become impaired. In my conception, the efforts of government should be addressed primarily to the underlying causes of unemployment and disability, rather than placing the emphasis upon paying its citizens for being unemployed or sick. It should encourage its citizens to provide against such contingencies by education, by savings, by insurance, and all other means available; and should provide for those whose needs are inevitable by a judicious system of public assistance, rather than fasten upon the whole American people a vast compulsory social insurance program administered by an ever-growing bureaucracy.

OFFICE OF WAR INFORMATION—FEDERAL SECURITY AGENCY

Federal Security Administrator Paul V. McNutt today announced the establishment of a new Office of Vocational Rehabilitation in the Federal Security Agency to administer the expanded federal-state civilian rehabilitation program provided under the Barden-LaFollette Act of July 6, 1943.

At the same time Administrator McNutt announced the appointment of Michael J. Shortley as director of vocational rehabilitation to head the new office, and of John A. Kratz as associate director. Both appointments represent advancement within the Federal Security Agency. Mr. Shortley comes from the Social Security Board's Bureau of Old-Age and Survivors Insurance, of which he has been assistant director in charge of field operations; Mr. Kratz transfers from the Division of Vocational Rehabilitation of the Office of Education, which he has directed, and which now becomes the nucleus of the new organization.

"The expansion of the program," Mr. McNutt said, "will contribute to the war effort by facilitating re-employment of the physically handicapped through provisions for physical restoration where possible and training necessary for employment."

"Until now," he pointed out, "the program did not provide for remedial treatment, though frequently relatively simple surgery would materially decrease the physical handicap or even remove or fully compensate for it. The new law makes federal money available for this purpose as well as for job training."

Mr. McNutt explained that the expanded vocational rehabilitation program rounds out the provisions that the federal government makes for the care of handicapped persons. Congress has recently authorized the Veterans Administration to provide vocational rehabilitation at federal expense to discharged veterans of the present war who have service-connected handicaps. The program administered by the new Office of Vocational Rehabilitation will provide care for other groups of handicapped individuals not receiving service under the veterans administration.

He also called attention to the fact that the new legislation meets a special wartime need by providing for the vocational rehabilitation of persons injured in nonmilitary war services. War disabled civilians covered by this provision include those incapacitated while serving as an unpaid volunteer in the aircraft warning service, the civil air patrol, or in protective services under the United States Citizens Defense Corps; or as a registered trainee taking training for such protective services, or as an officer or member of the crew of a vessel owned or chartered by the Maritime Commission or the War Shipping Administration.

As a war measure, the federal government will pay the expense incurred by the states in the rehabilitation of these war disabled civilians. Under the new statute federal grants also cover the entire administrative cost of approved state vocational rehabilitation programs and half the expense for rehabilitating individuals other than war disabled civilians. State Boards of Vocational Education are designated as the agencies for the administration, supervision, and control of state programs for vocational rehabilitation, except that administration of rehabilitation for the adult blind is committed to State Blind Commissions or similar agencies where such bodies have the necessary authority under state law.

In making today's announcement, Administrator McNutt pointed out that the direction of the Office of Vocational Rehabilitation will be in the hands of persons with long experience in rehabilitation and in government administration.

After serving as a second lieutenant in the first World War and being wounded in the Argonne drive of September, 1918, Mr. Shortley entered federal civilian service in 1919 as a training officer under the Federal Board of Vocational Education. Thereafter he was in charge of the physical and vocational rehabilitation of veterans of World War I in Western Pennsylvania and West Virginia under the Veterans Administration, and in 1941 was cited by the

American Legion Department of Pennsylvania for having served veterans with honor and distinction. Mr. Shortley has been an administrative officer of the Social Security Board for seven years, and since 1939 has directed the extensive field organization of the Bureau of Old-Age and Survivors Insurance.

Mr. Kratz has been long associated with the program. He was appointed a specialist in commercial education under the Federal Board of Vocational Education in 1920, and in 1921 became chief of the Division of Industrial Rehabilitation. After successive promotions in the Office of Education, he became director of vocational rehabilitation in that office in 1939.

Mr. McNutt paid tribute for their constructive vision to Representative Graham A. Barden, chairman of the Committee on Education, who sponsored the bill in the House, to Senator Robert M. LaFollette, Jr., its sponsor in the Senate, to Senator Elbert D. Thomas, chairman of the Education and Labor Committee, and to the members of both Congressional Committees.

"They recognize," he said, "that the return of handicapped wage earners to useful employment and self-support is not only an essential humanitarian service, but also a conservation measure of inestimable value —and one which becomes increasingly necessary under war conditions. Congressional hearings on the present act revealed that more than two million cases currently need the attention of state rehabilitation services. During the past three years there has been an increase of seventy per cent over the usual rate of disablement among industrial workers. Officials of state agencies and of national organizations concerned with this problem repeatedly emphasized the urgency of this need."

Quoting from the committee reports to Congress, he continued, "These accidents have mounted steadily with the great influx of untrained workers and the increase in size and tempo of industrial operations. In addition . . . injuries are daily occurring in the protective services (and among) the sailors who man our merchant ships. . . . The very fact that a person who is normally a breadwinner is disabled often raises a relief problem as to him and his dependents. From the viewpoint of both federal and state treasuries, and of the disabled persons themselves, experience has demonstrated that . . . where a disabled person may be made fit for employment, through rehabilitation, and become a tax producer, rather than a tax consumer, it would seem poor economy to deny him these necessary services. This is the dollars and cents justification of the program."

Pointing out that the present program is based on more than twenty years' experience, Mr. McNutt noted that federal grants to states for vocational rehabilitation have been authorized by Congress since 1920. The program was placed on a permanent basis by the Social Security Act in 1935, and the federal appropriations were increased by the Social Security amendment of 1939. Since early in 1940 federal interest has been particularly directed toward aiding the states to train more handicapped workers for war jobs.

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in two categories as follows: first, those who have been commissioned and are on duty; second, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	Ransom R. Buchholz	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Newton A. Cannon	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Lee Farrar Cayce	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Dan C. Gary	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James W. Harrison	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Nathan P. Horner	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville
Davidson	Rudolph A. Light	Nashville
Davidson	Jas. A. Loveless	Nashville
Davidson	J. P. Lowe	Nashville
Davidson	Sol Lowenstein	Nashville
Davidson	Jas. R. McMillan	Nashville

*Deceased.

Davidson—Robt. H. Magruder—Nashville
Davidson—C. G. deGutierrez-Mahoney—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Chas. A. Mella—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—E. White Patton—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Melvin M. Simmons—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—William H. Tucker—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Hugh Amos—Old Hickory
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Greene—John G. Zirkle—Greeneville
Hamblen—Robert A. Purvis—Morristown
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Walter Buckner, II.—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—Carl A. Hartung—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—E. F. McCall—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar
Hardeman—Wiley D. Lewis—Bolivar
Hardeman—M. J. Stewart—Whiteville

Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville
Hawkins—A. S. Yates—Rogersville
Haywood—Robert C. Berson—Brownsville
Henderson—R. M. Conger—Lexington
Henry—J. W. Didcoct—Paris
Henry—Arthur C. Dunlap—Paris
Henry—J. C. McKissick—Paris
Henry—Geo. H. McSwain—Paris
Hickman—Wm. L. Phillips—Centerville
Jefferson—William B. Malcolm—Dandridge
Jefferson—Frank L. Milligan—Jefferson City
Knox—A. J. Weber—Bearden
Knox—Malcolm F. Cobb—Concord
Knox—B. B. Mitchell*—Fountain City
Knox—Charles M. Armstrong—Knoxville
Knox—Spencer Y. Bell—Knoxville
Knox—R. G. Brashear—Knoxville
Knox—A. M. Carr—Knoxville
Knox—E. E. Carrier—Knoxville
Knox—Jack Chesney—Knoxville
Knox—L. W. Chesney—Knoxville
Knox—H. S. Christian—Knoxville
Knox—H. E. Christenberry, Jr.—Knoxville
Knox—Sam M. Cooper—Knoxville
Knox—Sam P. Davidson—Knoxville
Knox—T. P. Day—Knoxville
Knox—W. A. DeSautelle—Knoxville
Knox—T. B. Drinnen—Knoxville
Knox—Richard N. Duffey—Knoxville
Knox—J. Gilbert Eblen—Knoxville
Knox—Jas. B. Ely—Knoxville
Knox—Frank Faulkner—Knoxville
Knox—Peter J. Flippin—Knoxville
Knox—Edgar L. Grubb—Knoxville
Knox—Glenn D. Grubb—Knoxville
Knox—Geo. G. Henson—Knoxville
Knox—Oliver W. Hill, Jr.—Knoxville
Knox—C. R. Huffman—Knoxville
Knox—C. E. Irwin—Knoxville
Knox—Willard J. Irwin—Knoxville
Knox—H. H. Jenkins—Knoxville
Knox—J. O. Kennedy—Knoxville
Knox—A. H. Lancaster—Knoxville
Knox—R. P. Layman—Knoxville
Knox—J. H. Lesher—Knoxville
Knox—J. D. McCullough—Knoxville
Knox—Wm. T. McPeake—Knoxville
Knox—J. L. Montgomery—Knoxville
Knox—Wm. S. Muse—Knoxville
Knox—E. P. Nicely—Knoxville
Knox—Ralph Nichols—Knoxville
Knox—B. M. Overholt—Knoxville
Knox—Jos. B. Parker, Jr.—Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr.—Knoxville
Knox—Herschel Penn—Knoxville
Knox—Jarrell Penn—Knoxville
Knox—H. L. Pope—Knoxville
Knox—John S. Powers, Jr.—Knoxville
Knox—John A. Range—Knoxville
Knox—Jos. L. Raulston, Jr.—Knoxville
Knox—Hugh C. Reaves—Knoxville
Knox—J. W. Riggs—Knoxville
Knox—J. S. Ruffin, Jr.—Knoxville
Knox—J. H. Saffold—Knoxville
Knox—A. B. Shipley—Knoxville
Knox—P. D. Smith—Knoxville
Knox—J. M. Stockman—Knoxville
Knox—Geo. W. Tharp—Knoxville
Knox—Phil Thomas—Knoxville
Knox—Fred West—Knoxville
Knox—Jacob M. Williams—Knoxville
Knox—Leon J. Willien—Knoxville
Lake—W. T. Rainey—Tiptonville
Lauderdale—J. H. Nunn—Ripley
Lauderdale—W. Val Sanford—Ripley
Lawrence—L. C. Harris, Jr.—Lawrenceburg
Lincoln—R. E. McCown—Fayetteville
Lincoln—Ben H. Marshall—Fayetteville
Lincoln—M. C. Woodfin—Fayetteville
Lincoln—E. S. Leek—Petersburg
Loudon—F. E. Hufstedler—Lenoir City
Loudon—Avery Leeper—Lenoir City
McMinn—S. B. McClary, Jr.—Etowah
McMinn—A. W. Reeser—Athens
McMinn—Lester H. Shields—Athens
McNairy—T. N. Humphrey—Selmer
McNairy—H. O. Mason—Adamsville
Madison—L. D. Farragut—Bemis
Madison—Roderick C. Webb—Bemis
Madison—Everett Archer—Jackson
Madison—C. H. Brown—Jackson
Madison—W. B. Camp—Jackson
Madison—J. E. Douglass—Jackson
Madison—R. S. Hellmann—Jackson
Madison—Frank A. Moore—Jackson
Madison—Roy M. Neudecker—Jackson
Madison—Carl Rogers—Jackson
Madison—A. R. Taylor—Jackson
Madison—J. R. Thompson, Jr.—Jackson
Madison—P. E. Wylie—Jackson
Madison—Stevens Byars—Mercer
Marion—Russell B. James—South Pittsburg
Marshall—A. L. Cooper—Chapel Hill
Marshall—H. B. Disharoon*—Lewisburg
Maury—W. N. Cook—Columbia
Maury—Robin Lyles—Columbia
Maury—J. B. Miller—Columbia
Maury—E. K. Provost—Columbia
Monroe—D. F. Heuer, Jr.—Sweetwater
Monroe—R. M. Price—Sweetwater
Montgomery—J. A. Culbertson—Clarksville
Montgomery—John H. Ledbetter, Jr.—Clarksville
Montgomery—Phillip Lyle—Clarksville
Morgan—R. A. Steadman—Wartburg
Obion—Hal E. Bennett—Troy
Obion—Edward W. Barksdull—Union City
Obion—R. M. Darnall—Union City
Obion—R. G. Latimer, Jr.—Union City
Overton—H. B. Nevans—Livingston
Pickett—Floyd B. Hay—Byrdstown
Polk—Henry S. Harris—Benton
Polk—J. H. Lillard—Benton
Polk—H. H. Hyatt—Copperhill
Putnam—H. H. Taylor—Cookeville
Putnam—R. L. Akin—Monterey

*Deceased.

Roane—L. A. Killeffer—Harriman
Roane—G. D. Schuessler—Oliver Springs
Roane—F. Davis Owings—Rockwood
Robertson—J. C. Lunderman—Orlinda
Robertson—W. P. Stone—Springfield
Rutherford—Harvey W. Carter—Murfreesboro
Rutherford—Thos. G. Gordon—Murfreesboro
Sevier—John A. Conroy—Newton, Mass.
Sevier—Charles E. Pack, Jr.—Sevierville
Sevier—R. M. Perry—Sevierville
Shelby—J. H. Adler—Memphis
Shelby—R. Roger Anderson—Memphis
Shelby—Chas. G. Andrews—Memphis
Shelby—J. M. Aste—Memphis
Shelby—Edward R. Atkinson—Memphis
Shelby—Chas H. Avent—Memphis
Shelby—J. C. Ayers—Memphis
Shelby—James M. Bethea—Memphis
Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—R. F. Bonner—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—W. T. Braun, Jr.—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—James H. Collins—Memphis
Shelby—John Kerr Crawford—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—W. F. Dobyns—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Harold Feinstein—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—Paul Hill Goodman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Wm. E. Hurt—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingram—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Richard King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Chas. K. Lewis—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Wm. M. Lovejoy—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Geo. E. Paullus, Jr.—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—G. S. Plog—Memphis
Shelby—Ira F. Porter—Memphis
Shelby—Hugh R. Raines—Memphis
Shelby—S. L. Raines—Memphis

Shelby—R. Beverley Ray—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Hal S. Rhea—Memphis
Shelby—Chas. G. Robinson—Memphis
Shelby—Wm. A. Runkle—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—Lee Jess Seargeant, Jr.—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—Bryant S. Swindoll—Memphis
Shelby—B. S. Taley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis
Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—Jack Viscofsky—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis
Shelby—J. E. Watson, Jr.—Memphis
Shelby—Julian K. Welch, Jr.—Memphis
Shelby—S. I. Wener—Memphis
Shelby—Horace G. Williams—Memphis
Shelby—W. L. Wilhelm—Memphis
Shelby—Harwell Wilson—Memphis
Shelby—John M. Wilson—Memphis
Shelby—J. E. Wilson—Memphis
Shelby—C. Frank Yates—Memphis
Sullivan—J. W. Erwin—Blountville
Sullivan—Tom Kuhnert—Bristol
Sullivan—John Marcy—Bristol
Sullivan—G. W. McCall—Bristol
Sullivan—B. W. Mongle—Bristol
Sullivan—L. B. Snapp, II—Bristol
Sullivan—Myron J. Adams—Kingsport
Sullivan—F. L. Alloway—Kingsport
Sullivan—R. W. Asthalter—Kingsport
Sullivan—H. O. Bolling—Kingsport
Sullivan—R. H. Brown—Kingsport
Sullivan—H. S. Burem—Kingsport
Sullivan—W. C. Carreras—Kingsport
Sullivan—John B. Hamilton—Kingsport
Sullivan—R. B. Howard—Kingsport
Sullivan—K. R. Kiesau—Kingsport
Sullivan—M. D. Massengill, Jr.—Kingsport
Sullivan—J. F. Morton—Kingsport
Sullivan—R. G. Nichols—Kingsport
Sullivan—W. B. Payne—Kingsport
Sullivan—Raymond A. Steadman—Kingsport
Sumner—P. M. Huggins—Gallatin
Sumner—Benjamin A. Warren—Gallatin
Tipton—N. L. Hyatt—Covington
Tipton—J. S. Ruffin, Jr.—Covington
Tipton—O. J. Swisher—Covington
Unicoi—R. H. Harvey—Erwin
Unicoi—W. C. Humbert—Erwin
Unicoi—H. L. Monroe—Erwin
Union—Norman H. Rucker—Luttrell
Washington—C. M. Creech—Johnson City
Washington—H. B. Fuqua—Johnson City
Washington—C. S. Gresham—Johnson City
Washington—W. D. Hankins—Johnson City
Washington—Harry Myron, Jr.—Johnson City
Washington—W. L. Poole—Johnson City
Washington—W. G. Preas—Johnson City
Washington—Hugh F. Swingle—Johnson City
Washington—Charles P. Wofford—Johnson City
Washington—H. B. Cupp—Mountain Home
Washington—John Busey—Mountain Home
Washington—Ernest Marcus—Mountain Home
Weakley—Paul W. Wilson—Dresden
Weakley—Madison H. Buckley—Martin
Williamson—W. F. Roth, Jr.—Franklin
Wilson—O. R. Hill—Lebanon
Wilson—James McFarland, Jr.—Lebanon
Wilson—W. K. Tilley—Lebanon

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff—Clinton
Cannon—Carl E. Adams—Woodbury
Anderson—A. J. Butler—Clinton
Carter—John L. Chesnut—Elizabethton
Carter—E. T. Pearson—Elizabethton
Coffee—Wm. M. Minnis—Manchester
Davidson—E. E. Anderson—Donelson
Davidson—R. Z. Linney—Madison
Davidson—Joe E. Sutherland—Madison College
Davidson—J. J. Ashby—Nashville
Davidson—Edward H. Barksdale—Nashville
Davidson—Lynch D. Bennett—Nashville
Davidson—Randolph A. Cate—Nashville
Davidson—David W. Hailey—Nashville
Davidson—Andrew N. Hollabaugh—Nashville
Davidson—Thos. M. Jordan—Nashville
Davidson—J. K. Kaufman—Nashville
Davidson—Carl Kirchmaier—Nashville
Davidson—N. B. Morris—Nashville
Davidson—James C. Overall—Nashville
Davidson—James N. Owens—Nashville
Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville
Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—Trimble Sharber—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Herman Spitz—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville
Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Chas. W. Davis—Humboldt
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—John A. Brabson—Greeneville
Greene—Rae B. Gibson—Greeneville
Hamblen—M. J. Bellaire—Morristown

Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—H. P. Hewitt—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—John Moore—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Frank O. Nichols—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Montgomery—B. H. Webster—Clarksville
Morgan—Wm. E. Gallion—Oakdale
Robertson—Raymond H. Hirsch—Whitehouse
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Sevier—J. Myron Mittleman—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—H. E. Atherton—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—James T. Bridges—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—Oliver S. Matthews—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Roland H. Myers—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Donald W. Oelker—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Leo F. Pierotti—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—R. O. Rychener—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—O. B. Stegall—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Shelby—John E. Whiteleather—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Washington—G. V. Stanton—Limestone
Wayne—Dexter L. Woods—Waynesboro
Weakley—R. W. Brandon, Jr.—Greenfield
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

OCTOBER, 1943

EDITORIAL

Shortage of Scientific Papers

The fact that there was no scientific meeting of the Tennessee State Medical Association in 1943 is not news to the membership. The effect of this failure to meet may not have impressed itself upon the membership.

It has deprived the JOURNAL of about forty papers for publication in the JOURNAL. The situation is further complicated by the fact that a large number of our doctors are in the armed services and those left behind are so occupied that by the end of the day they are exhausted and are not inclined to prepare papers for publication. Notwithstanding these difficulties, we are attempting to keep the JOURNAL up to standard and fill it with scientific material of interest to the membership.

We are gleaning from other medical publications and have obtained the privilege of reproducing their material with due credit to them.

It is a fact that a great deal of material appears in special journals which do not have wide circulation in Tennessee. As a matter of fact, the *American Medical Association Journal*, with the widest circulation of any national publication, reaches about one-half of our own membership. This is not a complaint; it is rather a statement of fact.

What Do the People Want?*

In the past the common or horse sense of the American people has usually prevailed on vital questions of domestic policy and domestic economy. Than their national health and the manner of its maintenance at a high level of quality and efficiency, no public issue could be of greater importance. For this reason we urge thoughtful study by everyone of the provisions of the bill proposing to create a unified national social insurance system in the United States (S. 1161; H. R. 2861). Especially we urge careful study of what it proposes to do upon the representatives of the American people in Congress. Theirs is the responsibility for acceptance or rejection of a measure which would abolish private medical practice in this country and substitute for it political medicine at an annual cost of $3,048,000,000 of taxpayers' money.

For the record, we would bring to the attention of all concerned the following informative material:[1]

"Today we hear much about the miracles of modern medicine. We have taught our people to worship science. We physicians take great pride in the fact that we have the healthiest people who have ever lived on this earth. We would, therefore, remind those who are determined to institute some compulsory scheme under state control for passing out pills and potions to the citizens at the taxpayers' expense; we must ever remind these visionaries, I say, that we now have less sickness and live longer than any other people ever have done. Hence, we physicians are not interested in any revolution in medical practice. We are, however, concerned with the improvement of the health of the American people. Good as it is, we would like to make it much better. We are convinced that compulsory sickness insurance certainly will never in-

*Reprinted from *New York State Journal of Medicine*, October 1, 1943.

[1]Cincinnati Journal of Medicine, July, 1943.

crease the real health of the people, but that it will certainly increase the total medical bill for the nation. It may distribute it a little more evenly, but it can never reduce it. Better health will only come by more complete immunization of the public, better hygiene for each individual, and better nutrition for all. It is characteristic of the human mind to want a drug to cure its disease and save it from the penalties of its own violations of the laws of life, just as it looks always for a prayer or a penance that will save it from the sins of its own soul. Man has turned to science, which has extended its promises of salvation—salvation by means of water closets, bathtubs, automobiles, neosalvarsan, sulfa drugs, antitoxins, and vaccines. Now, man is turning to science's stepchild, economics, which describes a kingdom of heaven filled with garages for two cars, instead of one, an ever-normal granary, a quart of milk for every child, a 'free doctor' at everyone's beck and call twenty-four hours of the day. . . .

"As the upward trend of prices gains momentum, the squeeze on the middle income classes grows. White-collar workers are caught between higher taxes on one side and higher living costs on the other. Because they lack political power as a group they get little or no attention. Politicians listen instead to the demands of pressure blocs purporting to represent the farmer and the workingman. So the chain-store manager, the preacher, the schoolteacher, the bank clerk, and the younger college instructors are becoming medically indigent. It is a new group of people, but the same old problem. . . .

"It is true that nearly two-thirds of our people are lacking more or less in proper foods, either through ignorance or poverty, but when three-fourths of the automobiles in America in 1940 were driven by people earning less than twenty dollars per week I personally am convinced that our immediate problem is the development of a proper sense of values. The decision for most of our people is to choose between automobiles, movies, beer checks, store teeth, chronic ill-health, unpaid doctor bills, or sunshine and good food with their attendant good health. . . .

"I have complete confidence in the American people. As Louis Bromfield insists time and again, 'people are smarter than anybody.' The American citizen will not be fooled for long. Whenever he realizes that he has made a mistake with some social experiment, he is willing to repeal it. He is not afraid of names or slogans. He is pragmatic. His one test is, 'Will it work for me?' So we have the finest example of socialism in the United States Postal System, the most smoothly operating soviet in our school system with its Boards of Education. So the American has always been willing to try anything and ready to discard it if he finds he has made a mistake. In recent years, however, he has lost some of his curiosity, some of his daring. As we have become more and more industrialized we have lost the security that goes with living on a piece of land that we can call our own and upon which, if worst comes to worst, we can raise our own food. So there has been an increasing demand for 'security.' This has been aggravated by recent arrivals from Europe. It is actually against the tradition of our own pioneers to look to the state for succor in time of stress. . . .

"The bold knights of the whirligig who have led our nation for the last decade have been intent upon destroying the profit motive in making us all slaves of the state. It is but natural that the sucker bait for this so-called reform should be 'Social Security.' Mind you, whatever you or I may think of this 'protecting' hand of the state, it has come to stay for a good many years. Social Security is here. The only demand that we can now make is that Social Security work, that it provide for our people actual security from the major catastrophes of life at a cost which they can afford. To the city dweller working at a machine these catastrophes are unemployment, old age, and sickness. We now have as a part of our Social Security program old age and unemployment insurance. Of course, it does not provide much for unemployment, a few dollars a week for a few weeks. Even at that, how it will stand the strain of post-

inflation depression is an open question. If we accept in principle, however, the compulsory insurance plan, as a protection against old-age unemployment, we have few arguments to offer against insurance of the same sort to protect against the cost of illness and the loss of wages. There is always, of course, the actuarial question as to whether we can afford it. Social Security, however, is actually a tripod, two legs of which have been erected, and the third is coming, even if it wrecks the whole scheme. . . ."

Thomas A. McGoldrick, M.D., LL.D., president of the Medical Society of the State of New York, has this to say of the proposed legislation:

"The doctors were the earliest in the groups of real social workers. Besides the possessors of ever-increasing knowledge, they were the originators, the prompters, the inaugurators, and early directing guides of every hospital, every clinic in our land, and in their long-continued, unremunerated services have been the principal contributors and supporters of these institutions.

"There has been one factor in the solution of questions of Social Security which has not been stressed sufficiently and which has been of great, if not of greatest importance. With proper income, expended by himself, the sick man can select and secure his necessary care better than others can order it for him. The decrease in tenancy of the war—so-called free beds of our hospitals, the increase in pay accommodations, the reduction in number of maternity patients in the public wards, and the lessened number of dispensary patients in our clinics, as well as the reports of charitable organizations—shows the better health, as well as the increased income of these working people.

"Despite these advances there is again introduced into our Congress a bill, the Wagner-Murray-Dingell Bill, to broaden the fields of security, to increase the money benefits, and to give through the federal government compulsory, complete medical care. These benefits would inure to every person earning less than $3,000 per annum and to his dependents. It would cover 110 million people. The money is to be raised by a tax of twelve per cent of the gross sum paid in wages and salaries, six per cent to be paid by the employee. The gross sum to be taxed on the 1942 income would be over 100 billion dollars or a special tax income for Social Security of twelve billion dollars a year. . . .

"The administration of the act would be entirely in the authority and under the control of the Surgeon General of the United States Public Health Service. He will have an Advisory Medical and Health Council of sixteen members, selected by him, to be chosen from representatives of the medical profession, the hospital groups, social workers, the public, and others interested. These members will serve without pay, and while their opinions on questions may be asked, they need have no controlling influence or special weight with the Surgeon General.

"The rate of payment for hospital service is fixed in the law, while for physicians the Surgeon General will pay the doctors, 'fair, reasonable, and equitable compensation for services.' The method of payment may be for full- or half-time, may be by salary, by per capita of people listed, or by fee for service or a combination of these, and the fee schedules of payment may be changed by him periodically. The Surgeon General will have the authority to hire doctors, to determine the number of individuals for whom any physician may provide, 'to establish the qualifications of specialists and to determine arbitrarily what hospitals or clinics may provide service.' The Surgeon General is to find a way to provide, two years after enactment, nursing and dental care. He shall notify a board for this purpose, composed of the chairman of the Social Security Board, the Secretary of the Treasury, and himself, of the contracts and the obligations which he has assumed and this board shall thereupon authorize and certify the necessary disbursements. He shall by grants-in-aid encourage and support undergraduate and postgraduate education and any research work whether by individuals or by institutions of which he may approve.

"Thus we have the latest form of Cen-

tral Government Medicine proposed for this country. It is compulsory sickness, not health, insurance. It brings the bureaucrat and the politician into the care of the sick, it diminishes the independence of the physician in his work, it lessens incentive, and it substitutes for that American way of medicine which has accomplished so much a way untried in America and directed from the financial remuneration standpoint—from a standpoint of quantity of service and not quality of care.

"This system of compulsory sickness insurance will have nearly all the disadvantages which have characterized it in other countries. *It is estimated that its administration will cost 600 million yearly.* In other countries there have been more employees—even two to one in places—than there were professional people engaged. However, it is stated in the proposed act that the Surgeon General will secure a necessary legal authority to prevent politicians and bureaucrats from obtaining influence. . . ."

If the people want medicine under this type of control instead of the past and present type of free, liberal, and progressive administration and direction by physicians whose prime consideration is the public interest, the best interest of the individual patient, they can have it, pay for it, and like it! Or they can throw the proposal out of the window and continue to enjoy uninterruptedly the services of American physicians working for the American people and not for government. What do the people want?

Prevention of Rheumatic Reinfection*

Rheumatic fever is a much more frequent crippling scourge than poliomyelitis. The first attack may not infrequently be fatal, but its tendency to recurrence, thereby adding new injuries to the old, not only increases the mortality rate, but leaves the afflicted handicapped for life from permanent cardiac changes. Since the causative agent of rheumatic fever is still undiscovered, previous attempts to avoid recrudescences have necessarily been along nonspecific lines. Recognition of the important precipitating role of streptococcus hemolyticus infections has focused attention on measures to prevent such infections.[1] Avoidance of contact with streptococcus-infected individuals and climatic retreat to regions of low rheumatic incidence have been, until recently, the chief effective strategies. The last resort is really a drastic one, for it means disruption of normal family life and the wrecking of environmental influences.

Discovery of sulfanilamide and its proved bacteriostatic effect upon the streptococcus hemolyticus inevitably led to its use as a prophylactic agent against rheumatic reinfection. The earliest studies of such prophylaxis yielded encouraging data.[2, 3] Sulfanilamide-treated subjects who had suffered previous rheumatic infections developed few recurrences as compared with control groups of comparable untreated patients. Since children undergo more severe rheumatic infections and are more susceptible to recurrences than adults, further studies in children offered a searching test of sulfanilamide prophylaxis. Publication of two well-controlled series, dealing solely with children, and producing substantially the same results as have been obtained with adult rheumatic patients, was a most welcome confirmation.[4, 5]

The dosage of sulfanilamide employed prophylactically was small as compared with the therapeutic dose in active, acute infections. The most common dose was one to two grams daily, according to age and size, given in two or three divided doses. The blood level so attained was usually around two milligrams per cent. Toxic reactions occurred in ten to fifteen per cent of cases, largely in the form of fever, eruptions, and granulopenia. Acute hemolytic anemia was conspicuous by its absence, although a slight fall of hemoglobin was frequent. One death has been reported as resulting from this method of therapy.[6]

In spite of obvious inherent dangers which demand constant supervision and periodic blood examinations, the prophylactic administration of sulfanilamide (or a related sulfa drug) to rheumatic-susceptible

*Reprinted from *New York State Journal of Medicine*, June 1, 1943.

individuals, offers the greatest promise of any method yet devised to prevent rheumatic reinfection. Furthermore, it can be universally applied, for the economic factor is negligible, and there is no domestic and environmental cleavage. Since the ultimate prognosis of rheumatic fever is largely determined by reinfection, the prophylactic use of sulfanilamide bids fair to improve greatly the prognosis of the rheumatic patient. It must be emphasized that this therapeutic method is not designed for use during active rheumatic infection, when it is ineffective, but only for the prevention of reinfection. Its benefits are conferred only while the drug is taken. Administration will probably be of a seasonal nature repeated over a span of years until the time when it is believed that the rheumatic infection is unlikely to recur.

BIBLIOGRAPHY

1. Wilson, M. G.: Comonwealth Fund, Division of Publications, 1940.

2. Coburn, A. F., and Moore, L. V.: Journal of Clinical Investigation, 18: 147 (January), 1940; Medical Clinics of North America, 24: 633 (May), 1940.

3. Thomas, C. B., and France, R.: Bulletin of Johns Hopkins Hospital, 64: 67 (January), 1939; Journal of American Medical Association, 116: 551 (February 15), 1941.

4. Hansen, A. E.; Platou, R. V.; and Dwan, P. F.: American Journal of Disabled Children, 64: 963 (December), 1942.

5. Kuttner, A. G., and Reyersbach, G. J.: Journal of Clinical Investigation, 22: 77 (January), 1943.

6. Stowell, D. D., and Button, W. H.: Journal of American Medical Association, 117: 2164 (December 20), 1941.

"From Bismarck to Beveridge" Plus Wagner and Murray*

What a headache for the unsuspecting American people who truly represent pioneering stock. A people who ran away from unwarranted political domination only a few generations ago cannot accept such a total resubmission, with the sacrifice of many personal liberties, without a sense of distinct loss. Our citizenry should know that Social Security legislation, including compulsory health insurance, had its origin in Germany, where the common people have never seen the light of liberty; therefore, never happy without regimentation.

With the vision of a poet and the education of a doctor, Frederich Schiller cried out against the injustice of government control and military discipline. His stinging tragedy, "The Robbers," tells the story of his rebellion and his "William Tell" depicts his love of liberty as portrayed in a true democracy. Duke Charles could force upon the uninterested Schiller the study of law, later he could selfishly approve the less objectionable study of medicine, he could temporarily silence the freedom of speech, but never the freedom of thought, neither could he stay the secret record of Schiller's restless pen which proved a powerful vehicle against the evils of a merciless discipline. In this connection, we cannot refrain from quoting Karl Moser, who, at the moment of bitterness, said of his own nation: "Germany is a great, but despised people . . . my heart trembles at the sight of our chains." The same author, in an attempt to ascribe to every nation a governing principle, says: "In England it is liberty; in Holland, truth; in France, the honor of the king; while in Germany, it is obedience."

All this for the purpose of calling attention to the fact that it was in this national atmosphere that modern, socialized medicine was born. Bismarck, with the sagacity of a true politician, rather than the clear vision of a poet, seized his opportunity and as the real spokesman through the mouth of the emperor, sent his plan for accident insurance to the Reichstag as a message from the throne. This was in November, 1881. In the spring of 1882, Bismarck had two bills before the Reichstag: the Accident Insurance Act and the Sickness Insurance Act. The debate upon this proposed legislation was tempestuous. Bismarck was accused of being a Socialist and charged with a desire to destroy individualism. This opposition, however, came from the conservatives and represented the vain periscopic view of those not yet hopelessly submerged. Next in succession came the old age and health insurance and, finally,

*Reprinted from the July, 1943, issue of *The Oklahoma State Medical Journal.*

the unemployment insurance. In justification of the accusation that Bismarck was politically sagacious, it should be remarked that he argued that the best way to secure and maintain existing political policies was to place the people under obligation through paternalistic practices. In the fourteenth edition of the Encyclopedia Britannica, Erich Brandenburg, lecturer in philosophy and history at the Prussian Akademie der Wissenschaften, Berlin, says: "The people was and remained in his eyes purely a thing to be governed, unfit, in his opinion to influence the conduct of its own affairs in any large degree."

Unfortunately, England has already slipped into the whirling vortex and is now being urged to feed the last vestiges of professional freedom into the political shredder. Those who may question this statement should read the Beveridge Report, the Report of the Planning Commission of the British Medical Association, and, finally, the Report of the Medical Research.

The United States is likewise slipping. Bismarck's wildest dreams never surpassed the provisions of the Wagner Bill, S. 1161, which is now before the Congress of the United States. Time and space will not permit an analysis of this proposed legislation, but every doctor is urged to secure a copy[1] at once in order that he may study its contents and point out to his patrons the undemocratic provisions which virtually will destroy the time-honored patient and doctor relationship so vital to a free people. Contemplation of this bill is not only confusing but depressing. If it becomes law many members of the medical profession may find themselves sitting in the sad twilight of their freedom, looking upon the mangled torso of their humanitarian dreams. The proposed administration of this bill provides for a board containing a majority of laymen. But this is not surprising, with few exceptions, experience shows that in a bureaucratic government, slave driving is the prerogative of laymen arriving at the port of bureaucratic authority without justifiable portfolio.

[1]A copy may be obtained from the Clerk of the Senate, Senate Office Building, Washington, D. C.

Says Getting Medical Point of View Before Congress Is Not Easy Task

Despite the fact that there are seven physicians in the Seventy-Eighth Congress, the technic of getting the scientific medical point of view before our national legislators is not the easy task that it would appear to be, *The Journal of the American Medical Association* observes in an editorial in its June 26 issue. *The Journal* says:

"In the Seventy-Eighth Congress of the United States there are seven physicians. They include: Fred J. Douglas (R.), Utica, New York; Ivor D. Fenton (R.), Mahanoy City, Pennsylvania; Walter H. Judd (R.), Minneapolis, Minnesota; Joseph L. Pfeifer (D.), Brooklyn, New York; Frederick C. Smith (R.), Marion, Ohio; Grant Furlong (D.), Donora, Pennsylvania; Arthur L. Miller (R.), Kimball, Nebraska. By the very nature of things, a physician in the Congress should be able to present to the membership of that august body the scientific point of view that is lacking from the education of most of the members, the majority of whom are lawyers. Indeed, with seven physicians holding membership one might anticipate that there would not be any difficulty in getting the medical evidence clearly before the legislators. Nevertheless, it would not seem, if we are to believe Dr. Walter H. Judd of Minneapolis, that any such possibility prevails. In a recent communication to *Minnesota Medicine* (June, 1943), Congressman Judd says:

" 'There are now seven of us doctors in Congress, by the way.

" 'All of us got together, a while back, in the hope of fostering some sort of over-all scheme to take care of the medical situation. We hoped, at least, to be on the inside so as to survey the situation in the hospitals, in the Army and the Navy and Public Health Service and make an over-all plan. But we didn't get anywhere.

" 'The Public Health Service was interested, but the Army said nothing doing and the Navy was even more reluctant. Each group wants the men and the power and neither will give way to the others. It is the same with many government agencies in Washington.

" 'In fact, I am convinced that what we

need most in Washington is more doctors in government and, above all, more of the kind of mental habits that good doctors must have.'

"In his statement to the Minnesota State Medical Association Congressman Judd also urged that the medical profession accept responsibility for leadership in medicine in the postwar period. 'Certainly,' he said, 'neither you nor I want the professional philanthropists spinning out the alterations and calling the turn, though that is just exactly what will happen unless we take it over.' He felt that medicine might well take the middle course between the 'Old Guard,' which says that things must stay as they are, and 'the radical section that wants to scrap the entire system and start over.' Congressman Judd also felt apparently that it was difficult for Congress or the Senate to obtain information concerning medicine. An investigation of the records in the headquarters office of the American Medical Association indicates that heads of practically every governmental agency call at frequent intervals on the American Medical Association in their desire for accurate information regarding medical proposals. The Bureau of Legal Medicine and Legislation and the state medical societies regularly send to their representative in the Congress information regarding pending medical and health legislation. Unfortunately, some members of Congress studiously avoid any attempt to obtain consultation or information, as is indicated elsewhere in this issue in an editorial discussion of the Wagner-Murray-Dingell Bill.

"The contacts of American medicine in municipal, state, and federal government are surrounded in these times with hazardous possibilities. Motivations are constantly questioned. Indeed, in his presidential address to the Minnesota State Medical Association, Dr. Stephen H. Baxter pointed out that the activities of the Minnesota State Medical Association in relation to state legislation had recently been questioned by the state senate and 'that a resolution was presented to the Senate Committee calling for an investigation of the activities of the representatives of our association at the capitol. This resolution was not adopted, but it was widely publicized, and the very fact of its introduction created, in the minds of many people, impressions unfavorable to the association.' "

Reports Meningitis Death Rate Now Is Less Than 3.5 Per Cent

Medical Officer Says Amazing Reduction from Thirty-Nine Per Cent in Army in Last War Is Due Entirely to Chemotherapy

In a series of 1,518 cases of meningococcic meningitis (inflammation of the three membranes that envelop the brain and spinal cord) and septicemia (infection of the blood) in the Army's Fourth Service Command during the winter and spring of 1942-1943, an early mortality rate of 8.8 per cent in 317 cases was lowered during February and March to 2.1 per cent in 761 cases, Colonel Henry M. Thomas, Jr., reports in *The Journal of the American Medical Association* for October 2.

Colonel Thomas says that this "amazing reduction in mortality from thirty-nine per cent in the last war to less than 3.5 per cent in the present war is due entirely to chemotherapy (drug treatment). It is true that the most desperately ill patients may require additional therapeutic measures, but for over ninety-five per cent of all papients chemotherapy properly administered is the only specific form of treatment necessary.

"Of the various sulfonamide compounds sulfadiazine has up to the present proved to be the most satisfactory in the treatment of meningococcic infections. It is more efficacious than sulfanilamide, and with one important exception it is much less toxic than sulfapyridine and sulfathiazole. . . . If all patients could be given a diagnosis and treated at the onset of the first symptom, it is my firm belief that the mortality would be reduced to zero. However, the disease is often masked by the absence of pathognomonic symptoms (on which a diagnosis can be made) and by the simultaneous occurrence of many infections of the upper respiratory tract presenting similar symptoms. This leads inevitably to loss of time

in treatment in a few cases. In other cases the infection is so virulent that the patient dies before treatment can be given or before treatment has an opportunity to stem the tide of infection. . . ."

As for prevention, Colonel Thomas says that "the feasibility and effectiveness of large-scale prophylactic use of sulfadiazine in the reduction of carriers and the prevention of cases are being demonstrated. It has been possible then to compensate by improved methods of treatment and prophylaxis for the rapid training program which necessitated fatigue, exposure, and crowding of unseasoned troops. It seems safe to prophesy that in succeeding years the case rate can be greatly reduced by prompt prophylactic treatment as suitable points, particularly among unseasoned troops. It seems equally safe to prophesy that the mortality from the cases that do develop will be held to low levels, although the occasional cases of fulminating disease probably will continue to produce a small number of deaths."

War Surgery in a Military Hospital in the Middle East

The salient features of war surgery in a British military hospital in the Middle East during part of the North African campaign are discussed by *The Journal of the American Medical Association* for October 2 as follows:

"During the last nine months of 1942, 3,279 battle casualties were admitted to one military hospital on the lines of communication in the Middle East. Because of the enemy's rapid advance to El Alamein the arrival of wounded was so rapid that the hospital had to act as a casualty clearing station rather than as a base hospital. The mortality rate for the 300 casualties from Tobruk was three per cent and for the 500 casualties from the second battle of El Alamein it was ten per cent. The mortality rate for 2,679 casualties from the first battle of El Alamein, when the hospital acted as a casualty clearing station, was only 1.3 per cent. The high mortality rate for the casualties from Tobruk and from the second battle of El Alamein is due to the fact that seriously ill patients were sent to the hospital.

"The figure 1.3 per cent is approximately accurate for most casualty clearing stations. In analyzing the results, Lieut. Col. R. K. Debenham (in the *British Medical Journal)* emphasizes that all of the wounds dealt with were a result of fighting in dry sandy desert, that the amount of clothing worn was very small so that only rarely was clothing found in a wound, and that sulfanilamide was used prophylactically. As a routine ten grams was dusted into the wound and another ten grams after operation; five tablets (2.5 grams) were given by mouth at 6:00 A.M. and 6:00 P.M. daily for four days. The good results obtained in abdominal cases, particularly in those with bowel perforation, were due to early operation. Of the eleven patients with bowel perforation, the nine who recovered were operated on in forward areas and were kept there from five to sixteen days; the cardinal points seem to be early operation, late evacuation, intravenous saline drip (into a vein), continuous gastric suction, and salfadiazine. This is difficult with mobile warfare, but was possible when the line of battle was static.

"The worst cases of burns came from fighting in tanks. Because facilities for preliminary cleansing were not obtainable, tanning was discarded in favor of cleansing and powdering the area with sulfanilamide and dressing with petrolatum gauze. Patients traveled best with plenty of padding and in the cases of wounded limbs a light, well-padded plaster of Paris cast was definitely beneficial. In the early stages intravenous plasma or serum was considered essential. Blood transfusions were used for secondary anemia a week or ten days later. Patients with severe burns traveled badly, even up to two weeks after burning. After a long journey they arrived toxic and ill. It is easy to put too much sulfanilamide powder on the burns, especially in severe cases, as sulfanilamide is readily absorbed from burned areas and gives rise to profound toxemia. Blood and plasma or serum transfusions were used for shock, for burns, and during convalescence when the hemoglobin (the red pigment of the red blood

corpuscles) fell below sixty per cent. Gas gangrene has been rare and gas infection uncommon. No case of tetanus has been seen. . . .

"The salient features of war surgery in the Middle East are based on the principles which have been in the process of evolution since the beginning of the war. They are summarized as follows: organized resuscitation and the use of local and general sulfanilamide; thorough immobilization; conservative surgery and wound trimming instead of wound excision; avoidance of tension around wounds and provision of a good blood supply in damaged limbs, and the necessity to adapt and improvise articles to fulfill functions for which they were not intended."

Cite Value of Plaster Casts for the Treatment of Burns

Close Fitting Ones on Extremities Provided Comfortable, Rapid, and Uncomplicated Healing, Boston Doctors Report

Reporting on the results they obtained by use of close-fitting plaster of Paris casts in the treatment of burns of hands, arms, and legs, Stanley M. Levenson, M.D., and Charles C. Lund, M.D., Boston, say in *The Journal of the American Medical Association* for October 2 that "the prevention of swelling and the protection provided by the treatment have resulted in comfortable, rapid, uncomplicated convalescences, and in excellent functional results." They also say that the treatment is easy of application, the materials needed are widely available and of little bulk, and ideal protection against intercurrent infection and against the injury of transportation is afforded.

The use of plaster casts in treatment of various types of wounds and injuries is not new, but the use of close-fitting casts for burns of the extremities only recently has been the subject of investigation. The method used by Doctors Levenson and Lund involves no anesthesia, débridement nor cleaning except for the removal of large pieces of loose, hanging skin. One layer of sterilized petrolatum gauze is applied to the skin over the whole area to be covered by plaster. This layer is covered with four layers of sterile open mesh gauze, fitted carefully without overlapping. Very thin plaster slabs are then moistened and molded over the extremity front and back. A thin layer of rolled plaster completes a nearly skintight, light, well-fitting plaster which extends three to four inches above the burn.

The original cast is left in place for fourteen days. If the burn has not healed at that time another cast is applied and left for another fourteen days. Further treatment after four weeks, if necessary, is by other methods. Among the important points in favor of their method is that of comfort. They treated twenty-two patients and say that "from the start of treatment to complete healing the lack of pain experienced by these patients has been remarkable. As soon as the cast is applied, pain disappears. . . ."

DEATHS

Dr. Sam Bloomstein

Dr. Sam Bloomstein, Nashville; University of Nashville Medical Department, Nashville, 1896; aged seventy-four; died September 24, 1943, following a long illness.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

Maurice Seligman, captain, Medical Corps, Sixtieth Air Depot Group, Albuquerque, New Mexico, to Stinson Field, Texas.

P. M. Dings, captain, Medical Corps, 882 A/B Eng. Av'n. Bn., Bradley Field, Connecticut, to Camp Springs Field, Washington, D. C.

The present address of Frank F. Ellis, Jr., first lieutenant, Medical Corps, is Medical Detachment, Section 1, Station Hospital, Fort Jackson, South Carolina.

Herschel Penn, lieutenant, Medical Corps, U. S. N. R., is now at the U. S. Naval Base Hospital, No. 2, Navy 156, care Fleet Post Office, San Francisco, California.

Captain Moore J. Smith, Jr., Medical Corps, advises that his address has been

changed from Camp Roberts, California, to 925 South Western Avenue, Los Angeles 6, California.

Captain W. W. Watkins, Medical Corps, is now at Station Hospital, A. A. F., B. T. C. No. 10, Greensboro, North Carolina.

R. H. Haralson, formerly of Maryville, is now with the 115th Medical Battalion, A. R. O. 44, Fort Lewis, Washington.

J. M. Stockman, 301 North Orange, Dothan, Alabama, is now at the Finney General Hospital, Thomasville, Georgia.

Captain W. D. Steward, Medical Corps, Thirty-First Field Hospital, A. P. O. 180, care Postmaster, Los Angeles, California, is now at the Thirty-First Field Hospital, Camp Howze, Texas.

Alfred D. Mason, lieutenant commander, Medical Corps, U. S. N. R., U. S. Naval Hospital, Portsmouth, Virginia, to Naval Air Facilities, Attu, Alaska.

NEWS NOTES AND COMMENTS

Medical Bills in Congress

Change in Status.—H. J. Res. 159 has passed the House and has been favorably reported without amendment by the Senate Committee on Appropriations, making available an additional sum of $18,620,000 to provide obstetric and pediatric care to the wives and infants of enlisted men of the fourth, fifth, sixth, and seventh grades in the armed forces of the United States. An effort was made on the floor of the House to amend the joint resolution so that the federal money could be made available in the form of allotments to the wives of servicemen, but the amendment was defeated by a vote of 115 to 8.

Bills Introduced.—The President has submitted to Congress a supplemental estimate of appropriation for the Veterans' Administration, for the fiscal year 1944, in the amount of $10,356,000, to provide 3,950 additional beds for neuropsychiatric patients at thirteen existing facilities of the Veterans' Administration (H. Doc. 280). H. R. 3204, introduced by Representative Lynch, New York, undertakes to provide a system of old-age and survivors insurance for employees of certain organizations not at present within the coverage of the Social Security Act, such as religious, charitable, educational, and scientific organizations. H. R. 3293, introduced by Representative Peterson, Florida, provides that, notwithstanding any provision of law or veterans' regulation, the pension, compensation, or retirement pay of a veteran of the war with Spain, including the Philippine Insurrection and the Boxer Rebellion, shall not be reduced while such veteran is being furnished hospital treatment or institutional or domiciliary care by the United States or any political subdivision. H. R. 3294, introduced by Representative Talbot, Connecticut, provides that any blind person who is traveling on a train being operated by any common carrier by railroad subject to the Interstate Commerce Act may keep his seeing eye dog with him in any coach or Pullman car of such train.

At the invitation of the Pan-American Sanitary Bureau, Dr. Olympio da Fonseca, Jr., medical director for Brazil of E. R. Squibb and Sons, Inter-American Corporation, has arrived in the United States for an extensive lecture tour. He is appearing before the faculties and students of medical schools throughout this country, discussing "Tropical Medicine" with special emphasis on malaria, African sleeping sickness, amebic dysentery, and ringworm infection.

Doctor da Fonseca is a professor at the National School of Medicine of the University of Brazil and is connected with the Medical Center of Ceara and the Department of Health of that state. He has attained world-wide renown as a mycologist, both as teacher and as director in this field at the Institute of Manguinhos. He is the author of the textbook, "Medical Parasitology."

Doctor da Fonseca's lecture schedule includes the University of Tennessee College of Medicine, Memphis, Tennessee, on October 22.

A Young Doctor's Query

The following letter received from one of the members in the armed forces is of sufficient interest to justify its publication:

"I have just read with much interest the September JOURNAL.

"As one more young doctor serving in the armed forces, I would like to thank you for keeping the JOURNAL coming.

"We have had much discussion among the Army and Navy doctors here about postwar medicine and its bearing on us—who must face it or else. We are entirely confused as to what form of action we may take to add our weight to the battle.

"Have you any plan or program in which the young doctors may help out the other doctors at home?

"Perhaps our legislative assessment of 1941 could be used, in part, through the National Physicians Committee.

"The Wagner Bill is a direct threat to the men who are sacrificing the most in our profession and we want to be guided in our efforts to fight it.

"Congratulations on the Basic Science Bill, wounded and bloody though it was, it was a moral victory and an opening wedge."

Postgraduate Instruction in Surgical Diagnosis

The Fourth Circuit in Surgical Diagnosis for the postgraduate program has just opened in West Tennessee. This circuit includes the cities and teaching centers of the following, also shown is the number enrolled at the end of the first week for each center:

Memphis (white)	248	
Memphis (colored)	22	270
Dyersburg	39	
Union City	14	
Camp Tyson	29	
McKenzie	20	
Trenton	22	124
Total		394

This is the largest number of physicians ever enrolled in the fourth circuit in West Tennessee. It is due to the fact that so many from the Army and Navy camps and fields of this area have registered. Doctor Branch very kindly offered to give a separate section of the course out at the hospital in Camp Tyson, when Colonel J. H. Blackwell, camp surgeon, advised that their medical officers did not have automobiles and it was difficult to arrange government transportation for the medical officers to reach the town of McKenzie; but the duty requirements at the post did permit some to attend there but subject to emergency call. This was a happy arrangement and Colonel Blackwell and his hospital staff, also medical officers on duty with field units, are deeply grateful for a separate session at Tyson.

Doctor Branch has been carrying a heavy schedule of consultations over cases with physicians in practice. He states, "That in his opinion, this phase of the program has equal value from the standpoint of teaching as his didactic lectures." One physician, when the course closed in his center and the tenth lecture had adjourned, stated: "Now the big question is—Doctor Branch is leaving us, what are we going to do with our surgery patients?" In this center Doctor Branch had seen a great many surgery patients in the local hospital for all the doctors. Doctor Branch is living at Forrest Part Apartments in Memphis and welcomes communications from any physician in his past circuits of problems which he might be able to answer promptly during the following months with clerical assistance in the office at this time. The fifth circuit will open in Nashville, Dickson, Clarksville, Springfield, Gallatin, and Meharry on November 29, 1943.

L. W. KIBLER, *Field Director.*

Examinations—American Board of Obstetrics and Gynecology

The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Saturday, February 12, 1944, at 2:00 P.M. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. All applications must be in the office of the secretary by November 15, 1943.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

Mr. L. W. Kibler, field director of the Committee on Postgraduate Instruction, wrote us on September 14, giving late information about Dr. Frank Whitacre, instructor in obstetrics. Below we quote the letter in full.

"A letter just arrived yesterday, September 13, from Mrs. Frank Whitacre, wife of Doctor Whitacre, who was our instructor in obstetrics, stating that she has positive and official information that Doctor Whitacre is to be included in the returning group of American prisoners from the Philippines on the ship Gripsholm which sailed September 2, and that this ship will return about December 1 in New York, and that she expects to make the trip from California to New York to meet that boat.

"We thought his Tennessee friends and many physicians would be interested in this good news."

MEDICAL SOCIETIES

Davidson County:

The regular meetings of the society will be held on the first and third Wednesday evenings of each month.

At the meeting held on September 22, Dr. Carl S. McMurray discussed "The Rationale of Estrogen Therapy." Discussion by Drs. R. S. Duke and W. C. Dixon.

October 6—"Diversion of Urine," by Dr. Burnett Wright. Discussion by Drs. Henry Douglass and E. H. Barksdale.

Hamilton County:

September 16—Paper by Dr. Hiram A. Laws, Jr.

September 23—Paper by Dr. B. L. Jacobs.

September 30—Paper by Dr. E. M. DeLay.

October 7—"The Management of Hyperthyroidism," by Dr. Gene Kistler.

October 14—"Wrist Region Injuries," by Dr. P. H. Dietrich.

Knox County:

September 14—"Weight Reduction," by Dr. Bruce Powers. Discussion opened by Dr. H. C. Long.

At future meetings the following are some of the subjects to be discussed: "Blood Bank, War, and Tubercular Problems"; "Carcinoma of the Breast and Cervix"; "Recent Contributions to Gastroenterology."

Meetings will be held on alternate Tuesday nights beginning September 14 unless otherwise specified.

Robertson County:

The Robertson County Medical Society met in regular meeting on September 22, 1943, after a summer recess since May. There being no regular scientific program, the entire meeting was devoted to business. The first order of business was a proposition from Mr. Jimmie Thompson, representative of the Farm Security Administration, in which he requested a renewal of an old contract to render medical aid to the members of that organization. The members of the medical society agreed to render medical aid to the members on the basis of two dollars for the first mile plus fifty (50) cents per mile for each mile thereafter; office calls at one dollar plus cost of supplies and medicine; twenty-five dollars for obstetrical cases. Mr. Thompson in return submitted the proposition to his board of directors and it was rejected by them.

Next order of business was discussion of Senate Bill No. 1161 or what is known as the Wagner Medical Aid Bill now before the National Congress. Upon and after full discussion of this bill the society voted unanimously to condemn it in its entirety and instructed its secretary to write all of our senators and members of the House of Representatives, informing them of their action and requesting them to oppose the measure.

Next order of business was the regulating and fixing of fees for the members of the society which were voted as follows: obstetrical cases, for office calls prior thereto to be one dollar; calls made at the home, two dollars and twenty-five dollars for delivery, or a maximum fee of thirty-five dol-

lars. All calls after 9:00 P.M. and on Sunday to be at the price of time and one-half. All proofs of death, Social Security blanks, etc., shall be made at the price of not less than one dollar each and cash.

There being no further business the society adjourned until its next regular meeting date.

JOHN S. FREEMAN, M.D.,
Secretary.

Shelby County:

At the meeting held on October 5, the following case reports and papers were read:

Case Reports: "Intestinal Obstruction Due to Endometriosis," by Dr. L. F. Pierotti.

"Dermoid Cyst of Left Ovary and Ectopic Pregnancy of Right Tube in Same Patient," by Dr. Breen Bland.

Papers: "Rocky Mountain Spotted Fever," by Dr. L. W. Diggs. Discussion by Dr. S. L. Wadley and Dr. Henry Packer.

"Treatment of Fractures of the Ulna with Dislocation of the Head of the Radius," by Dr. H. B. Boyd. Discussion by Dr. E. J. Lipscomb and Dr. A. H. Meyer.

OTHER MEDICAL SOCIETIES

The alumni of the Medical College of the State of South Carolina is sponsoring a refresher course, which will be held in Charleston on November 3 and 4 at the Francis Marion Hotel. While hotel accommodations are scarce, everybody will be housed. Requests should be made at once to Dr. Wm. H. Kelley at the Medical College or to Dr. J. I. Waring, chairman, Committee on Refresher Course, 82 Rutledge Avenue, Charleston, South Carolina.

The subjects and speakers are as follows:

"The Uses and Abuses of the Sulfonamides," by Dr. H. L. Flippin, Philadelphia, Pennsylvania.

"Differential Diagnosis of the Anginal Syndrome," by Dr. C. C. Wolfert, Philadelphia, Pennsylvania.

"The Essentials of Pneumoconiosis," by Dr. L. U. Gardner, Saranac, New York.

"Traumatic Shock," by Dr. Alfred Blalock, Baltimore, Maryland.

Clinical presentations, by visiting speakers and faculty.

Medical Round Table — "The Sulfonamides," by Dr. Flippin. "Treatment of Heart Disease," by Dr. Wolfert. "Pulmonary Diseases," by Dr. Gardner, Baruch Auditorium.

Surgical Round Table, by Dr. Blalock, Baruch Auditorium.

Pathological conference, Dr. K. M. Lynch, Pathology Laboratory.

"Deficiency Diseases," by Dr. V. P. Sydenstricker, Augusta, Georgia.

"Physiological Considerations in the Treatment of Nephritis," by Dr. G. W. Thorn, Boston, Massachusetts.

"Calcific Aortic Stenosis," by Dr. J. T. King, Washington, D. C.

"Diagnosis and Treatment of the Hemorrhagic Diseases," by Dr. R. R. Kracke, Atlanta, Georgia.

Clinical presentations, by visiting speakers and faculty.

Round Table—"Thyroid Disturbances or Other Medical Subjects," by Drs. Thorn and King, Baruch Auditorium. "Nutritional Diseases and Hemorrhagic Diseases," by Drs. Sydenstricker and Krache, Baruch Auditorium.

Pathological conference, Dr. K. M. Lynch, Pathology Laboratory.

Founder's Day Banquet—Speaker, Dr. Henry Meleney, New York. Subject, "Tropical Medicine—Present and Future." Francis Marion Hotel.

ABSTRACTS OF CURRENT LITERATURE

ANESTHESIA

By HUGH BARR, M.D.
Medical Arts Building, Nashville

The Aims of Thyroidectomy and Their Achievement: The Need for Close Cooperation Between Surgeon and Anesthetist. Joseph L. De Courcy. Anesthesia and Analgesia, May-June, 1943.

There is no procedure in which close cooperation between surgeon and anesthetist is more essential. The patient should be treated individually. Laboratory tests are indispensable. Preoperative prep-

aration is paramount, such as physical rest, freedom from mental strain, appropriate sedation, carefully chosen diet, and the administration of iodine.

The author mentions another procedure that is of the utmost importance. That of the administration of seven half grains of sulfapyridine every four hours for several days prior to the operation. This has helped to prevent discomort caused by tracheitis and the formation of mucus. Aside from affording relief from tracheitis, sulfonamides will do much to prevent pneumonia.

An hour before operation one-eighth to one-sixth grain of morphine is administered. The several thousand goiter operations performed at the De Courcy Clinic have afforded ample opportunity to evaluate the various methods and types of anesthesia. A thorough trial of five hundred cases under local anesthesia caused a decision to be made to dispense with this method, due to nervousness and apprehension on the part of the patient, although it is less toxic.

The surgeon under local anesthesia has less freedom to perform rapid manipulations. Trials with ether and numerous other agents have been given up in favor of nitrous oxide and oxygen due to its nontoxicity, rapid induction and recovery, and it is nonexplosive. Also there are few postoperative complications. With adequate oxygenation, no extra strain is put on the already damaged myocardium.

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

Hypertension and Pregnancy. R. D. Mussey, A. B. Hunt, and F. S. Sluder. American Journal of Obstetrics, 45: 224, 1943.

Hypertensive disease associated with pregnancy may be divided into two classes: (1) chronic hypertensive disease that existed before the pregnancy and (2) acute hypertensive disease arising during pregnancy. The former is characterized by more or less generalized sclerosis of the arterioles, the latter by acute spasm of the arterioles of a previously "normal" vascular system. Chronic hypertensive disease, with or without renal disease, tends to be aggravated before the twenty-fourth week of pregnancy and to produce symptoms, one or more of which simulate those of acute hypertensive disease. Symptoms of acute hypertensive disease rarely become evident before the twenty-fourth week of gestation and commonly not before the ninth or tenth lunar month.

From 1932 to 1941, inclusive, 297 cases of toxemia of pregnancy were observed at the Mayo Clinic. This was 5.7 per cent of the total number of labors. In thirty-three per cent of the cases the disease was of the chronic hypertensive type; in fifty-three per cent it was of the acute hypertensive type; and in eight per cent it was eclampsia. Only twenty-one per cent of the patients who had eclampsia had received prenatal care, whereas ninety-five per cent of the patients delivered at the clinic have received it. Among patients who had received adequate prenatal care, the incidence of eclampsia was less than two per cent. Eleven therapeutic abortions were performed because of severe chronic hypertensive disease, associated in at least five cases with nephrosclerosis. There were four maternal deaths (1.3 per cent). The total fetal mortality rate was nineteen per cent, or omitting therapeutic abortions, sixteen per cent.

Routine, periodic, ante partum care—care of good quality as well as quantity—with carefully recorded blood-pressure readings has made possible the early detection and treatment of hypertensive toxemias of pregnancy and has lowered the incidence of eclampsia. It appears to have lowered also the incidence of severe, acute, hypertensive toxemia.

The following generalizations in the management of toxemia of pregnancy deserve mention: (1) rest and sedation; (2) low salt diet; (3) ample protein and relatively low fat and carbohydrate diet; (4) increase of fluid intake unless oliguria persists; (5) hospitalization, if possible, before the process becomes severe; (6) shortening the course of the disease, when necessary, by termination of the pregnancy; and (7) conservatism in management of childbirth. When the toxemia is severe, and when the patient fails to improve, or when, following improvement, there is a relapse, termination of the pregnancy is advisable. The treatment of eclampsia consists in measures to control convulsions. After this is accomplished, induction of labor is usually indicated.

In the presence of known severe chronic vascular disease or renal disease, pregnancy is contraindicated. If pregnancy occurs in such a case, particularly if there is a history of severe toxemia in a previous pregnancy, or more rarely if there is definite evidence of lowered renal function, interruption of pregnancy is advisable. Every woman is entitled to make her own decision, although the risk involved should be explained to her. In about half of the cases in which the disease is severe, the patients give birth to living children. Comparatively few mothers die during pregnancy. Most of them have an increase of severity of the chronic vascular disease, which probably shortens their lives. A minority go through pregnancy without apparent exacerbation of the disease.

In the series of cases that were reviewed there were four cases of severe vascular collapse, in all of which the patients responded to prompt and repeated intravenous administration of fluids and one or more transfusions.

A Report of the Caesarean Sections Done at the Philadelphia Lying-in (Pennsylvania) Hospital. R. W. Mohler. American Journal of Obstetrics, 45: 466, 1943.

This report includes all the Caesarean sections done from July 1, 1932, to July 1, 1942. It represents the work of a group of men working as a

unit to do what in their judgment seemed best at the time.

During the whole ten-year period, 1,322 Caesarean sections were done; 785 operations, an incidence of 9.3 per cent, were done on the private service, and 537, an incidence of 3.6 per cent, were done on the ward service. Fortunately for comparison, the number of operations was about the same during both five-year periods, and the incidence of operations, 5.8 per cent, was the same for both periods.

The indications were the usual ones in most instances, the main ones having been disproportion and previous section. The totals of these two indications were about the same for both periods, 65.2 and sixty-one per cent, respectively. Placenta previa and premature separation of the placenta were regarded as indications for Caesarean section in almost all instances. Toxemia had become a much less frequent indication for Caesarean section in the second period, which indicated plainly the reduced incidence of the malady and the change in the management of the condition.

Classical operations were performed in 71.84 per cent of the patients, and there were slightly more of the classical operations in the second period than in the first. The attitude of the staff toward low sections now seems to be that patients who have been in labor for more than twelve hours and patients with ruptured membranes or potential infection should have a low type of Caesarean section or a Porro type of operation. Rupture of the membranes has been considered an absolute indication for a low Caesarean section or a Porro operation, according to the length of time the membranes have been ruptured and the evidence of infection.

The standard for temperature morbidity is the one recommended by the Maternal Welfare Committee, and, since its adoption, there have been 245 patients delivered by Caesarean section with a temperature morbidity of twenty-two per cent, which is within expected and normal range.

For the entire group of 1,322 patients, there were twenty-six maternal deaths, or an incidence of 1.96 per cent; during the first period, there were seventeen, or an incidence of 2.55 per cent; and during the second period, there were nine, or an incidence of 1.37 per cent. Sixteen deaths, a mortality of 1.67 per cent, followed 949 classical operations; five deaths, a mortality of 11.7 per cent, followed thirty-four Porro operations; three deaths, a mortality of 1.19 per cent, followed 256 Kerr operations; and two deaths, a mortality of three per cent, followed sixty-eight Beck operations.

Three of eleven patients who died of shock had either placenta previa or premature separation of the placenta; one had a ruptured uterus; and one died during Caesarean section following a traumatic attempt at vaginal delivery. The type of operation seems to have no bearing on the outcome. Two of the deaths from peritonitis followed the Porro operation, three followed the classical, and one followed the Kerr operations. Pulmonary embolism accounted for three deaths; one of these cases noted above had presented peritonitis; and cerebral embolism accounted for one death. Nine patients died from causes complicating pregnancy and labor, or systemic conditions, and the method of delivery could not have been a factor in the cause of death.

There were 1,310 single births and twelve sets of twin births. Among these there were 113 deaths, or an incidence of 9.2 per cent. Thirty of the infants were stillborn and eighty-three represented neonatal deaths. Many of the neonatal deaths were among the premature infants which were delivered by Caesarean section because of placenta previa and premature separation of the placenta.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Subjunctival Dislocation of Lens with Sympathetic Ophthalmia. Dr. Charles A. Perera. Archives of Ophthalmology, August, 1943.

Sympathetic ophthalmia, described over a hundred years ago by MacKenzie, is a serious disease of the eyes, and fortunately very rare. It occurs in about .1 to .15 per cent of clinic patients and in about ninety per cent of the instances follows a perforating wound of the eyeball or an intraocular operation. A survey of the literature by R. Irvine in 1940 showed that sympathetic ophthalmia followed a perforating wound of the eyeball in one or two per cent of the cases. Statistics recorded by many authors show that in twenty-five to forty per cent of cases it is associated with an operation on the eyeball. The disease occurs at all ages and predominantly in males. It has been described in cases of necrotic malignant melanoma of the uveal tract (with and without perforation of the involved globe), following perforating ulcers of the cornea and as an aftermath of contusion of the eyeball with subconjunctival rupture of the globe. The few examples of sympathetic ophthalmia following contusion without rupture of the eyeball are open to doubt. Andersson, in 1938, reported a case supposedly of this condition in a child, only to find a tiny perforating wound of the sclera, choroid, and retina in a study of serial microscopic sections of the enucleated eye. Exhaustive studies of sympathetic ophthalmia in recent years have been made by E. Fuchs, Theobald, A. Fuchs, Joy, Woods, Samuels, Trowbridge, Gorduren, Sohr, and R. Irvine. The two main etiologic theories of sympathetic ophthalmia are (1) virus infection and (2) allergy, probably to uveal pigment. Tuberculosis as a cause is becoming less tenable.

Sympathetic ophthalmia following rupture of the eyeball with subconjunctival dislocation of the lens has rarely been recorded. In each case it is im-

possible to eliminate the possibility of a conjunctival tear at the time of the injury.

Report of a Case

E. L., a seventy-year-old white woman, a widow, was seen in November, 1941, in consultation concerning a "growth" of the left eye. This eye had suffered from poor vision and recurring intraocular hemorrhages following keratitis at the age of eighteen. The onset of the patient's present illness followed a fall eight weeks before I first examined her. She stated that she struck her left temple and that a severe hemorrhage appeared in her left eye, followed by a "growth." Four weeks later the vision in her right eye became obscured by "cobwebs," and she consulted a local oculist, who prescribed atropine sulfate drops and hot compresses and advised the removal of her seven remaining teeth. The extraction of the teeth had no effect on her eyes, and the vision of her right eye failed rapidly.

Examination of her eyes eight weeks after her fall showed a soft right eye, with a plastic exudate in the anterior chamber, many posterior synechias, incipient cataract, a cloudy vitreous, and vision equal to perception of hand movements. The left eye showed a central corneal opacity, a projecting mass of inflamed prolapsed iris and uveal tissue beneath the bulbar conjunctiva in the lower nasal quadrant, a yellowish rounded subconjunctival mass superior to the prolapsed iris, normal intraocular pressure and vision equal to light perception. The patient was admitted to the Institute of Ophthalmology of Presbyterian Hospital with a diagnosis of subconjunctival dislocation of the lens and prolapse of the iris of the left eye and probable sympathetic ophthalmia. Dr. A. B. Reese examined her and agreed with this diagnosis. Enucleation of the left eye was performed nine weeks after the alleged injury. My study of microscopic sections of the left globe resulted in the following pathologic diagnoses: (1) indirect rupture of the globe; (2) luxation of the lens subconjunctivally; (3) aniridia; (4) sympathetic ophthalmia following injuries; and (5) corneal scars. Healing of the socket was uneventful. The right eyeball has gone on to degeneration, discoloration of the iris, dense cataract, and faulty light projection.

ROENTGENOLOGY

By J. Marsh Frere, M.D.
Newell and Newell Sanitarium, Chattanooga

Roentgen Therapy of "Virus" Pneumonia. Albert Oppenheimer, M.D. From Department of Roentgenology, Laconia Hospital, Laconia, New Hampshire. The American Journal of Roentgenology and Radium Therapy, May, 1943, Vol. 49, No. 5, p. 635.

The author gives the results he obtained in fifty-six cases of virus pneumonia and pneumonitis in the following table:

Number of Cases	*Duration of Illness Before Roentgen Therapy*	*Duration of Symptoms After Roentgen Therapy*	*Cured*	*Not Cured*
18	2-5 days	1-2 days	14	
		3-5 days	4	
22	6-14 days	1-2 days	4	
		3-5 days	15	3
16	Over 14 days	1-3 days	2	
		4-7 days	6	8
—			—	—
Total 56			45	11

None of the cases had previously responded to medical treatments. The failure to respond to sulfonamide therapy was considered a diagnostic sign.

The therapeutic effect of roentgen treatment varied to some extent with the duration of the disease prior to irradiation. As a general rule, a single treatment was sufficient to bring about a return of temperature to normal within sixteen hours, as well as a considerable diminution of the cough and distress, in patients treated within a few days after the onset of symptoms. About twenty-four hours after the treatment, expectoration usually increased moderately in these cases, and most of them were discharged from the hospital after another day or two. The annoying cough which troubles the convalescence of untreated patients did not occur at all in the cases treated early. When, previous to irradiation, the disease had lasted for over a week, one treatment usually resulted in a drop of temperature to slightly above normal, but the coughing spells tended to persist, and the temperature often rose again after an interval of three or four days. In the cases of this group, a second treatment, sometimes followed by a third one after forty-eight hours, was necessary to obtain relief and drop of the temperature to normal. In two patients treated sixteen and twenty-three days after the onset of symptoms, several irradiations with increasing doses (up to 300 r) failed to effect any therapeutic results. These observations suggest that roentgen therapy of virus pneumonia is useful mainly during the early stages of the disease.

For the treatment of virus pneumonia, the following factors were used in this series: 130 to 150 kilovolts, according to the size of the chest and the thickness of skin and muscles, thirty milliamperes, .5 millimeters copper plus one millimeter aluminum filtration, fifty centimeters anode, skin distance, and average dose of fifty r (measured in air) through portals covering the involved parts of the lungs, usually twenty by twenty centimeters. This technique was adopted after treatment with 100 r or more at early stages had induced severe systemic reactions with chills, convulsions, and cold sweats in three instances.

Roentgen therapy with small doses of between

thirty-five and ninety r resulted in clinical cure within a few days in forty-five out of fifty-six cases of virus pneumonia. The pulmonary consolidations disappeared within three to five days after roentgen treatment. The results of roentgen therapy were best at early stages of virus pneumonia, but limited when irradiation was used later than two weeks after the onset of the disease. Roentgen therapy was the most effective mode of treatment for the control of the persistent cough which delayed complete recovery during convalescence in patients who had not received irradiation during the febrile stage. At early stages, the r doses applied should be small. Treatment with doses exceeding 100 r during the early stages resulted in alarming systemic reactions. No untoward reactions whatever were observed with the use of smaller doses.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

Results of Surgical Treatment of Diffuse Glomerular Nephritis. C. Lobo Onell and I. Dias Munoz. Journal of Urology, July, 1943.

This paper is based on thirty cases observed at the Hospital del Salvador in Santiago de Chile. It is a continuation of the studies made by Chabanier, Gaume, and Onell, who, in 1937 in Paris at the Congress of the French Urological Association, gave a report on the results in 120 cases of decapsulation and denervation for medical kidney disease.

Valhard's classifications have been used in this article, dividing the cases into four categories: (1) the acute form; (2) the subacute form; (3) the subchronic form; and (4) the chronic or vascular form.

Sixteen cases of acute glomerular nephritis were operated in this series. Those who had bilateral decapsulation and denervation showed marked improvement at once. Those who were operated on one kidney only did not show much improvement until after the other kidney was operated, at which time they also showed marked improvement. Although some of these patients might have made spontaneous recovery, it would have taken them a much longer time.

No case of the subacute form was operated in this series.

In the subchronic form of glomerular nephritis the lesions are organized and the damage to the kidneys is, to a degree, irreparable. In one case of this type marked improvement was evident after bilateral operation. The second and third cases are apparently well and healthy at the end of five years' observation.

In the chronic cases it is problematic, whether surgery has a chance to modify the progress of the disease, since the course varies from a short time to many years. However, two forms of chronic glomerular nephritis are amenable to surgery; they are the painful and the hematuric forms. In these cases decapsulation relieves symptoms, prolongs life, and tends to halt the progressive course of hypertension.

Send It to

LILY WHITE LAUNDRY

6-3118

Order Reprints From

McQUIDDY PRINTING COMPANY

Nashville, Tennessee

ACCEPTED by the AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.
President-Elect—Dr. Kyle C. Copenhaver, Medical Arts Building, Knoxville.
Vice-President for West Tennessee—Dr. J. W. Oursler, Humboldt.
Vice-President for Middle Tennessee—Dr. Burnett W. Wright, Nashville.
Vice-President for East Tennessee—Dr. J. C. Brooks, Chattanooga.
Secretary-Editor—Dr. H. H. Shoulders.
Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1946).
Dr. E. R. Zemp, Walnut Street, Knoxville.
Dr. B. L. Jacobs, Provident Building, Chattanooga (1946).
Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).
Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Jere L. Crook, Jackson.
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.
Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1946).
Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennesse (1946).

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H. P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	J. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S. Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	H. H. Edmondson, Clarksville	Jack Ross, Clarksville	B. H. Webster, Clarksville
Obion	M. T. Tipton, Union City		M. A. Blanton, Jr., Union City
Overton	W. M. Breeding, Livingston		A. B. Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood		W. W. Hill, Harriman
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			W. M. Dedman, Gallatin
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. W. L. Williamson, Memphis
Dr. L. W. Edwards, Nashville
Dr. E. G. Wood, Knoxville
Dr. A. M. Patterson, Chattanooga
Dr. J. O. Manier, Nashville

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville (1945)
Dr. A. F. Cooper, Memphis (1944)
Dr. Cecil E. Newell, Chattanooga (1946)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. E. A. Gilbert, Chattanooga (1944)
Dr. R. R. Crowe, Nashville (1946)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Lee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1946)
Dr. John B. Steele, Chattanooga (1946)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1946)
Dr. T. R. Ray, Shelbyville (1946)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. O. N. Bryan, *ex officio*, Nashville

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1948)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1946)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1946)
Dr. John M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. C. H. Sanford, Memphis (1944)
Dr. D. W. Smith, Nashville (1946)

COMMITTEE ON MEMOIRS

Dr. James O. Walker, Chairman, Franklin (1945)
Dr. D. W. Hailey, Nashville (1944)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1946)
Dr. J. L. Hankins, Johnson City (1946)

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. John S. Cayce, Nashville (1944)
Dr. J. B. Fitts, Chattanooga (1944)
Dr. M. L. Hefley, Knoxville (1946)
Dr. C. W. Friberg, Johnson City (1946)

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. W. R. Cross, Knoxville (1946)

COMMITTEE ON CANCER

Dr. C. H. Heacock, Chairman, Memphis (1944)
Dr. Ralph H. Monger, Knoxville (1946)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. Stanton S. Marchbanks, Chattanooga (1944)
Dr. Howard King, Nashville (1946)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. C. R. Thomas, Chattanooga (1944)
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1946)
Dr. George Inge, Knoxville (1946)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. Carrington Harrison, Nashville (1946)

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. E. T. Newell, Chattanooga (1945)
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Robert F. Patterson, Knoxville (1946)

COMMITTEE ON PREPAYMENT PLANS FOR MEDICAL AND HOSPITAL SERVICES

Dr. J. O. Manier, Chairman, Nashville
Dr. R. R. Brown, Nashville
Dr. J. C. Brooks, Chattanooga
Dr. M. S. Roberts, Knoxville
Dr. A. R. Porter, Jr., Memphis
Dr. W. D. Stinson, Memphis

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatic Society—
President—Dr. Frazier Binns, Nashville*
Vice-President—Dr. O. L. Von Canon, Chattanooga*
Secretary—Dr. Gilbert Eblen, Knoxville*

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland*
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis*
Vice-President—Dr. Franklin B. Bogart, Chattanooga*
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

*In service.

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Copyright, 1943, by the Tennessee State Medical Association

Volume XXXVI
Number 11

NOVEMBER, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

LOCAL TREATMENT OE BURNS, R. B. Chrisman, Jr., Lieutenant Colonel, Medical Corps, Chief Surgical Service, Station Hospital, Camp Eorrest, Tennessee . . . 413
A STATEMENT OF THE ATTITUDE OF THE COUNCIL OE THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND ON THE WAGNER-MURRAY-DINGELL SOCIAL SECURITY PLAN (S. 1161 AND H. R. 2861) . . . 416
THE DRUG TREATMENT OF MALARIA, SUPPRESSIVE AND CLINICAL . . . 418
BACILLARY DYSENTERY: A RESUME OE THE DISEASE AND ITS MODERN TREATMENT, Edward L. Turner, M.D., Nashville . . . 424
TENNESSEE DOCTORS AND THE MILITARY SERVICE . . . 428
EDITORIAL . . . 434
DEATHS . . . 435
NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE . . . 435
COMMITTEE REPORTS . . . 436
NEWS NOTES AND COMMENTS . . . 441
MEDICAL SOCIETIES . . . 443
OTHER MEDICAL SOCIETIES . . . 444
ABSTRACTS OF CURRENT LITERATURE . . . 445
LIST OF OFEICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION . . . 451
STANDING COMMITTEES . . . 452
INDEX TO ADVERTISERS . . . XXII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

BACKGROUND

Three Decades of Clinical Experience

THE use of cow's milk, water, and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

DEXTRI-MALTOSE No. 1 (with 2% sodium chloride), for normal babies.
DEXTRI-MALTOSE No. 2 (plain, salt free), permits salt modifications by the physician.
DEXTRI-MALTOSE No. 3 (with 3% potassium bicarbonate), for constipated babies.

These products are hypo-allergenic

DEXTRI-MALTOSE

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons. Mead Johnson & Company, Evansville, Ind., U. S. A.

DEC 1 1943

TESTED...
AND PROVED



*measurably
LESS IRRITATING
to the Nose and Throat

** Reprints of studies on the irritant properties of cigarettes are available. Address your request to Philip Morris & Co. Ltd., Inc., 119 Fifth Avenue, New York.*

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI NOVEMBER, 1943 No. 11

LOCAL TREATMENT OF BURNS*

R. B. CHRISMAN, JR., Lieutenant Colonel, Medical Corps, Chief Surgical Service, Station Hospital, Camp Forrest, Tennessee

The present-day opinion, both from civilian and military sources, regarding the local treatment of burns, is so voluminous, and at the same time so controversial, that it almost behooves one to accept a method of treating burned cases which has proved to be the most effective in his own experience, and to continue with it until such time as a uniform method or methods can be more generally accepted.

Within the past two years practically every surgical journal has contained one or more articles or abstracts pertaining to the local treatment of burns. In my opinion, local treatment of the burned patient is always secondary to the general treatment of preventing or combatting shock and pain. These are the primary and certainly the predominant factors which demand the immediate attention of the surgeon. Oftentimes the secondary or local treatment of the burned patient must be altered by the general physical condition, the degree of burn, the surface areas involved, the time and place of the accident, the equipment, materials, and general emergency and definitive facilities available for such therapy.

At the Station Hospital, Camp Forrest, Tennessee, we have cared for a large maneuver area. Patients are sent directly to us from the maneuver field zones and from evacuation hospitals. Since the beginning of the large maneuver phase in the fall of 1942, the surgical service has received 116 burned cases which have been classified as second- and third-degree burns. Of these 116 cases, there has not been a death. Most patients were burned from gasoline explosions, and of the gasoline explosions, approximately seventy per cent were incurred while working with field range stoves or motor vehicles.

For the sake of brevity, an outline of the methods used in our hospital is given. When the patient is admitted to the hospital receiving office, a medical officer determines, as quickly as possible, the general condition of the patient, gives him necessary emergency care, and the patient is carried to the operating room for the general and definitive treatment.

For the local treatment it must be emphasized, as has been stated, that variations and controversies in the manner of handling are multiple. It must also be remembered that most burns, in the beginning, are uncontaminated and that all methods of treatment should include the principles which will: (1) prevent infection; (2) not add infection; (3) not add to injury; (4) prevent toxemia and shock; (5) convert an open wound into a clean wound; and (6) will close that wound at the earliest

*Approved for publication.

possible moment with safety and future functional activity for the patient.

With the above principles in mind, the patient is placed on a sterile sheet on the operating room table. All clothes are removed together with all jewelry. A large number of sterile drapes are freely used. An estimation of the extent of the burned area is made after the method of Berkow, and recorded for present and future reference. The debriding process is rendered almost painless by administering *adequate* doses of morphine either subcutaneously or intravenously. An attempt is made to keep the operating room at a temperature of approximately eighty degrees. The whole plan is to transform the extensive and contaminated raw surfaces into a surgically clean wound without adding further injury and bacteriological contamination; to restore the body tissues to as near normal as possible; and to return the soldier to duty at the earliest practicable date. This requires, on the part of the surgeon, time, considerable patience, and gentleness; plenty of neutral soapsuds and an abundance of sterile water and physiological saline, the latter being at a temperature of approximately 100 degrees Fahrenheit.

The surgeon and his assistants are all capped, masked, and gowned with sterile gloves. Grease or ointments which often cover the burned surface can usually be successfully removed with ample quantities of neutral soap and water. In some instances, a fat solvent such as benzine, ether, or pure salt-free lard may be necessary. These should be used with considerable care. A number of good detergents are now available. The cleansing process is carried out by the use of large pads of soft sterile cotton, neutral soap, and sterile water. In our opinion, tincture of green soap, gauze, and scrub brushes have no place in the treatment of such conditions. All blebs and blisters are opened with sterile scissors. Shreds of epithelium and loose skin are lifted away with forceps. No attempt is made to excise any tissues where bleeding would result, and this, we feel, is quite important. The above treatment most often can be accomplished by the use of morphine intravenously one-sixth grain in ten cubic centimeters of sterile water administered slowly at frequent intervals to maintain comfort and to permit the respirations to remain fairly normal. Anoxia must be prevented, and if the degree of the burn is of such severity that the above procedure cannot be carried out, gas, oxygen, and ether anesthesia is usually employed.

When the initial cleansing process has been completed, the surgeon and all assistants remove gowns and gloves and regown, reglove, and redrape the patient, using a new set of sterile instruments for further procedures. Suffice to say, after thorough cleansing and gentle debridement, we have had the best results in the treatment of burns of the face, genitalia, and perineal region by using ample quantities of physiological saline in the form of continuous wet dressings. In some instances it is wise to use the above in severe burns of the hands. These regions should never be covered with tight dressings. All other burned surfaces are then smoothly covered with a few layers of fine mesh gauze (forty-four mesh) impregnated either with five per cent boric acid ointment or with plain petrolatum. The gauze is prepared in strips three inches wide and twelve inches long. This dressing does not adhere to the raw surface, neither does it tend to fix tissues if it is applied evenly. It will allow for drainage of serum and exudate into the dressings outside and probably helps to conserve body plasma. Over these strips of boric or petrolatum gauze, six to eight layers of flat, smoothly placed dry sterile four by four-inch gauze are laid. Above this, a layer of gauze fluff is applied and then the application of a large amount of cotton waste or mechanic's waste is used. Sea sponges may be used to some advantage. Over this, muslin rolls cut on the bias are helpful. In some instances, an elastic bandage is found very advantageous, particularly is it efficacious in the region of the chest and abdomen. Thus rest to the injured part is accomplished as far as possible, and it is believed that splinting of the burned tissues is just as important as it is to splint and rest soft tissues in fractured bones.

The above dressing is not removed for ten to fourteen days, depending somewhat on

the degree of the burn and the condition of the patient during the interim. Occasionally the extremities are placed in molded plaster splints; this may add to the comfort and general well-being of the patient. Time does not permit to enter into a discussion of the subject of grafting. Needless to say, this should be done at the earliest opportune moment, keeping in mind that good blood supply, healthy granulations not too far advanced, and an absence of infection should always be paramount prior to any grafting procedure.

It is interesting to note that in the series of 116 cases mentioned, fourteen had received the tanning treatment prior to admission to our hospital. Our experience with tannic acid makes us feel that the treatment of burns with other procedures than the tanning method is probably safer to the patient, places him on a duty status a little quicker, and may ultimately lead to a more normal and more functional physical state.

The above is simply a résumé which we have found to give good results. In no way are my remarks intended to criticize or belittle any other method or manner of caring for the burned patient.

A STATEMENT OF THE ATTITUDE OF THE COUNCIL OF THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND ON THE WAGNER-MURRAY-DINGELL SOCIAL SECURITY PLAN (S. 1161 and H. R. 2861)

There have been two substantial criticisms made against the system of medical care that has been available to the people of the United States. One of these is that certain economic groups have lacked proper health services. The other is that certain geographical areas have lacked sufficient physicians.

Against these inadequacies in certain economic and regional areas must be set the splendid record of medical care in the United States as a whole. This is attested to, not only by the comparison of mortality and morbidity statistics in the United States as against any other nation of comparable size, but by the excellence of medical education, of hospital care, of scientific advancement, and of general standards of medical service in this country. It would be a most shortsighted policy to adopt measures in the hope that they would remedy the occasional shortcomings of our present scheme, if such measures threatened at the same time to destroy the admittedly tremendous results that have been accomplished under that scheme.

It is our belief that the Wagner-Murray Bill (S. 1161 and H. R. 2861) is such a measure and does threaten to destroy the medical system in this country that has, on the whole, been so successful. This bill would apparently subject almost the whole medical service of the country—the individual physicians, the hospitals, the clinics, and the medical schools—to the domination of the federal government, and specifically to the almost unrestricted control of a single individual who happened to occupy the position of Surgeon General of the Public Health Service. Assuming that the occupant of this position were exceptionally gifted in character and ability, it is most dangerous in principle to put such power in the hands of one man, and it is contrary to the sound tradition of this country that the federal government should arrogate to itself such power. Perhaps more than most other fields of human effort, medicine prospers in an atmosphere of individual freedom and responsibility. This is true of the highly individualized work of the research investigator, of the spirit and methods of the various medical schools and hospitals, and certainly of the personal relationship between doctor and patient. Those precious qualities are essential to the maintenance of high standards in medical services, and even more to the constant advancement of those standards. There is every reason to fear that they will be lost, or at least badly damaged, by any such radical change from the traditional freedom and responsibility that have made them great, as is proposed in this bill. It is not necessary to point out that under the proposed bill nearly all medical institutions and individuals will come under a high degree of control and restraint by a political agency and a governmental agent. The widespread introduction into the medical world of most undesirable motives and methods is almost sure to result. The fact that preferment and advancement depend upon approval of superiors in official positions makes this seem inevitable.

These harmful effects on medical education, research, and practice, bad enough in themselves, are chiefly to be feared because of the result upon the health and medical welfare of the individual citizen. It can scarcely be doubted that the care of the sick person will deteriorate when his physicians are controlled and directed by governmental agencies, when those physicians are educated in government controlled schools, and when the development of medical science is under the guidance of the federal government. It should also be recalled that the individual patient who shares in the payment for this state-provided type of medicine must do so whether or not he personally prefers or is willing to submit to that form of treatment. There is nothing specific in the plan that undertakes to improve the problem of distribution of medical care in scarcity areas, which is one of the real difficulties of the present system.

It is not alone the effect of this bill upon

the medical profession and the quality of medical service rendered to the public that is to be feared. It represents a long step toward the philosophy of government that exists in totalitarianism states, against which we are presumably fighting now to defend the so-called American way of life—the right and the duty of the citizen to fend for himself. However popular in certain minds the "cradle to the grave" state care may be, the American people as a whole can scarcely wish that the entire control and direction of medical care should become a governmental function, because in some localities and in some economic groups there is need for improvement over past conditions. This need for improvement is recognized by the medical profession and by the public health services of the various governmental units, and active efforts are being made to secure such improvement at the level where it should be made—namely, in the localities and in the economic groups where the need exists. Such efforts should be encouraged and developed with limited federal aid where it is proved necessary. This is an approach to the problem more realistic, more promising, and far less destructive and dangerous than the revolutionary procedure advocated in the proposed Wagner-Murray Bill (S. 1161 and H. R. 2861).

Much may be said about the financial features of the bill. It imposes an additional burden upon an already heavily taxed people far beyond the amount needed to correct the acknowledged deficiencies of the present situation. It adds billions to the huge amounts of money already being dispensed by the federal government, with the inevitable increase in administrative costs, personnel numbers, and opportunities for waste and extravagance.

In view of these facts, and for these reasons the Medical and Chirurgical Faculty of the State of Maryland, through its council, and representing the organized profession of the state, do hereby request and urge that the votes and influence of the senators and representatives of Maryland be cast against the passage of Senate Bill 1161 (H. R. 2861).

October 8, 1943.

ARTHUR M. SHIPLEY, M.D., *Chmn.*
CHARLES R. AUSTRIAN, M.D.
VICTOR F. CULLEN, M.D.
HARVEY B. STONE, M.D.
FREDERIC V. BEITLER, M.D.
J. ALBERT CHATARD, M.D.
W. HOUSTON TOULSON, M.D.
Special Council Committee.

THE DRUG TREATMENT OF MALARIA, SUPPRESSIVE AND CLINICAL*

The following article from the Office of the Surgeon General of the Army has been distributed as Circular Letter No. 153:

1. *Efficacy of Atabrine, Quinine, and Plasmochin.*—a. Available evidence indicates that atabrine is as effective as quinine (or more so), both in suppressive use and in the treatment of clinical attacks. No available drug or plan of administration can be expected to prevent relapses in all cases (see paragraph 6). Recent studies have shown that the plasma level of the drug is fundamental in determining its efficacy. Under ordinary conditions the rates of absorption of the two drugs are not significantly different. Quinine is localized in the tissues to a smaller extent than atabrine, and effective plasma concentrations, therefore, are usually attained shortly after the beginning of its administration. Atabrine, on the other hand, at first is taken up to a much larger extent by the tissues, so that effective concentrations in the plasma are reached only as certain tissues become more or less saturated. On the usual dosage plans, therefore, quinine reaches an effective plasma level more rapidly than atabrine. In order to attain effective concentrations of atabrine in the plasma, it is necessary to give relatively large initial doses (as is done with the sulfonamides) or to wait for a varying period while the drug accumulates. Further discussion of the desirable methods of giving atabrine will be found under Suppressive Treatment (paragraph 4) and Clinical Treatment (paragraph 5). Since a great many different plans of giving atabrine and quinine have been tested, little can be gained by numerous modifications which serve only to confuse the problem.

b. Plasmochin cannot be used for suppressive treatment, since in safe doses it has very little effect on schizonts. For the same reason it fails to control clinical attacks of malaria; hence plasmochin alone cannot be used in clinical treatment. This drug has some degree of special action in the destruction of gametocytes, an effect which does not influence the course of the disease in the patient, but might be of value in controlling the spread of the disease. It has not been established, however, that the use of plasmochin constitutes a practical method of malaria control. It is also stated that the incidence of relapses is less when plasmochin is given after atabrine or in conjunction with quinine, but this is a matter of controversy and the claim has not been borne out by recent experience. After consideration of the possible advantages and the toxic effects (see paragraph 2c), in addition to the prolongation of hospitalization, the routine use of plasmochin is not advised.

2. *Untoward Effects of Atabrine, Quinine, and Plasmochin.*—Each of these drugs is capable of producing toxic reactions. Occasional individuals are peculiarly intolerant of each.

a. Mild disagreeable reactions from atabrine may occur in a certain percentage of individuals given the drug for suppressive treatment. When such symptoms occur, they usually follow one of the first few doses. They are much more apt to occur when atabrine is given between meals. They may consist of nausea, abdominal cramps or occasionally headache, vomiting, and diarrhea. These symptoms may be prevented in most cases by giving sodium bicarbonate or sweetened drinks such as tea with the atabrine. They are never serious and almost invariably disappear if the drug is continued. In a small percentage of some groups of patients receiving clinical treatment mild excitement has been observed. Toxic symptoms of any type are unusual in association with the treatment of clinical attacks with atabrine. There are on record only a very few instances in which hepatic disease may have been associated with therapeutic doses of atabrine and none with suppressive treatment. Approximately one-third of the individuals taking atabrine develop a yellow discoloration of the skin. This is caused by the deposit in the skin of atabrine (which is a dye). It does not represent hepatic damage, is not dan-

*Reprinted from *Journal of the American Medical Association*, September 25, 1943.

gerous, and is not an indication for discontinuing the drug. The discoloration disappears within a few weeks after the drug is stopped. Extensive investigation has failed to show that atabrine in the usual doses has any effect whatever on flight capacities of flying personnel. Atabrine in suppressive doses has been taken by large groups for a year or more without known lasting untoward effect.

b. Outstanding untoward results of quinine which appear in most patients following therapeutic doses of the drug are tinnitus, impairment of hearing, dizziness, tremor, and palpitation. They have been used as an index that the drug is being absorbed and is exerting an effect. In milder degree some of these symptoms may be seen during suppressive treatment. Some aviators have found them troublesome. The more unusual severe untoward effects of quinine are generally the result of individual hypersensitivity or of unnecessarily large doses.

c. The margin of safety between therapeutic and toxic doses of plasmochin is small. The toxic symptoms include abdominal pain, nausea, vomiting, cyanosis, headache, dizziness, and drowsiness; hemoglobinuria, jaundice, and acute yellow atrophy of the liver are rarer, but very dangerous effects.

3. *Conservation of Quinine.*—The limitation of the supply of quinine is so great that the use of the drug must be restricted as directed in S. G. O. Circular Letter No. 179, December 21, 1942. Quinine should never be used for suppressive treatment except in emergencies when atabrine is not available and, exceptionally, for the very few individuals who cannot tolerate atabrine. Its use for clinical attacks should be restricted to the following types of cases:

a. Severe infections with Plasmodium falciparum in which intravenous therapy is deemed essential.

b. Serious intolerance to atabrine.

c. When atabrine is not available.

d. Following repeated relapses in spite of atabrine therapy, when a change of drug is considered highly desirable. In such cases a complete course of quinine may be used as described in paragraphs 5 b (2) and 6 c.

4. *Suppressive Treatment.*—a. Drug suppressive treatment is an emergency procedure which should be employed only when troops must accomplish a mission in an area where there is a substantial risk from malaria and where protection by mosquito control measures is not possible. At present there is no drug known which, in safe doses, will prevent mosquito borne infection with malaria. However, atabrine, taken regularly in proper doses, suppresses clinical symptoms for varying periods of time and enables men to remain active in spite of infection which otherwise would incapacitate them. For this reason suppressive treatment has its chief use among troops that must maneuver or fight in malarious regions and cannot be given full protection from mosquitoes. When these troops return to sanitated areas, suppressive treatment should be discontinued as soon as feasible.

b. For suppressive treatment to be effective, it is essential that the drug be taken regularly. Experience has shown that a roster check with each dose is the only practical means of accomplishing this result. This is the responsibility of the unit commander.

c. In general, suppressive treatment should be instituted as soon as possible after arrival in an unsanitated malarious area. There are, however, certain advantages in starting the administration of atabrine in advance of exposure when it is practicable to do so. First, opportunity is afforded to discipline officers and men in establishing the routine of taking atabrine. Second, such disagreeable reactions as may occasionally accompany the first few doses are experienced before the men engage in combat activities. Third, recent experimental studies show that with the suppressive dosage of atabrine recommended in paragraph 4 f the maximum plasma concentration of the drug is not attained until after the third week. Hence, the institution of atabrine suppressive treatment two weeks in advance of exposure may be advantageous in that a high plasma level of the drug is achieved by the time clinical

symptoms might be expected to appear. However, when men must travel to their destination by boat, seasickness may be a contraindication to the institution of atabrine suppressive treatment in the period preceding arrival in the malarious area.

d. When suppressive treatment is discontinued, most of the men who have been infected will develop clinical malaria (the majority within two or three weeks) and will then require clinical treatment (see paragraph 5). Consequently, suppressive treatment should not be stopped until the men have returned to a base where adequate medical care is available. When a large force returns from a hyperendemic area, it may be wise to stagger the cessation of suppressive treatment in order that hospital facilities may not be overtaxed.

e. *Occurrence of Clinical Symptoms During Suppressive Treatment.*—In highly malarious regions, especially under the stress of combat, suppressive treatment may fail to prevent clinical symptoms in a certain percentage of cases. These cases should be given a course of clinical treatment (see paragraph 5), following which the suppressive treatment should be resumed, if still indicated. Many instances of so-called break-through of clinical symptoms can be traced to failure of the individual to take the drug regularly.

f. *Administration of Atabrine for Suppressive Treatment.* — The recommended method is to give .1 gram of atabrine (1½ grains—*i. e.*, one tablet) once daily at the evening meal six days each week (total .6 grams per week).

g. An alternative method of suppressive atabrine administration, which has been satisfactory in some areas, is to give .05 gram of atabrine (¾ grain—*i. e.*, one-half tablet) once daily at the evening meal six days each week, and a dose of .1 gram (1½ grains—*i. e.*, one tablet) at the evening meal on the seventh day (total of .4 gram per week).

h. Quinine, because of the limited supply available, should not be used for suppressive treatment except in the few cases mentioned (paragraph 3). Recommended dosage is .6 grams (10 grains) of quinine sulfate daily at the evening meal.

i. Plasmochin should not be used for suppressive treatment at any time.

5. *Treatment of Clinical Attacks.*—a. Diagnosis: (1) Malaria should be suspected not only in patients with periodic chills and fever, but also in any obscure illness, febrile or nonfebrile, in endemic regions. The symptoms of malaria may vary in different cases from mild headache or diarrhea to severe chills and fever, and to delirium or coma.

(2) In general, the diagnosis must be based on the actual finding of parasites in the blood. In each suspected case, examine the blood as soon as possible. Thick smears are preferable because the parasites are concentrated. Each smear should be examined carefully for at least five minutes before being pronounced negative. Thin smears should also be made for use when species diagnosis cannot be made from thick smears; each smear should be examined carefully for at least fifteen minutes. In Plasmochin falciparum infections estimate the proportion of infected erythrocytes; when five per cent or more erythrocytes are infected, treat as you would a comatose patient [see paragraph 5 c (2)]. If parasites are not found, make smears on successive days, because the symptoms in a first attack may appear when the density of parasites is low and because in Plasmochin falciparum infections there may be very few parasites in the circulating blood during the second twenty-four hours of each asexual cycle.

(3) Even in severe Plasmochin falciparum infections with cerebral symptoms, including coma, it may be difficult to demonstrate parasites. Suspect as Plasmochin falciparum malaria every case of febrile illness in which coma or medical shock occurs in a patient in or from an endemic area. Excessive fatigue, headache, and fever are frequently the only prodromal symptoms of cerebral malaria. This form may simulate acute alcoholism or the patient may be maniacal, requiring morphine. During the stage of onset the temperature is often little elevated and in the presence of coma it may be normal or subnormal. If the facilities for immediate examination of blood smears are not available, malarial

therapy should be immediately instituted in such emergency cases.

(4) When treatment is started before the parasites are demonstrated, it should not be continued beyond a period of one week unless the diagnosis is confirmed by finding parasites. It is rare that the fever of malaria fails to respond to adequate doses of atabrine or quinine.

b. Uncomplicated malaria (patient able to retain oral medication): Be sure that each patient takes the drug as ordered. Each dose should be taken in the presence of a nurse or medical officer. Even though vomiting has not occurred, occasional patients receiving oral therapy fail to absorb the drug adequately. If the diagnosis has been confirmed, patients who are seriously ill and do not respond should receive intramuscular or intravenous therapy, as described in paragraph 5 c, until a therapeutic response is obtained. In occasional cases, especially of Plasmochin falciparum infection, in which fever is persistent, method (1) or (2) should be continued beyond the period of seven days at the discretion of the medical officer:

(1) The method of choice is to use atabrine alone. In accordance with the principles outlined in paragraph 1 a, atabrine should be given in relatively large initial doses, followed by smaller maintenance doses. Recommended dosage: atabrine hydrochloride .2 grams (3 grains) and sodium bicarbonate one gram (15 grains) by mouth with 200 to 300 cubic centimeters of water (or an equal amount of sweetened tea or fruit juice) every six hours for five doses, followed by .1 gram (1½ grains) three times a day after meals for six days (total 2.8 grams in seven days).

(2) If atabrine is not available, use quinine alone, as follows: quinine sulfate one gram (15 grains) by mouth three times a day after meals for two days, followed by .6 gram (10 grains) three times a day after meals for five days (total 16 grams in seven days).

(3) Plasmochin may be given in connection with either of the foregoing treatments; however, its routine use is not advised. If plasmochin is given, the patient must be hospitalized and closely observed. The dosage given below should not be exceeded. Plasmochin may be given immediately following atabrine (not with it) or along with quinine on the last days of treatment with that drug. The course consists of plasmochin .01 gram (1/6 grain) by mouth three times a day after meals for four days except for the debilitated patient, who should receive only two doses a day. Each dose of plasmochin should be accompanied by at least one gram (15 grains) of sodium bicarbonate. The fluid and sugar intake should be liberal during and for some days after the course. Discontinue plasmochin at once if any toxic symptoms appear.

c. Severe malaria or malaria complicated by vomiting, coma, or other serious disorders: In these cases, and whenever a patient cannot retain or fails to respond to oral medication, atabrine or quinine should be given parenterally by one of the methods described below [paragraph 5 c (2) (a) or (b)].

(1) If vomiting is present, take general measures to control it. Do not allow solid food just before a febrile paroxysm is expected. If there is nausea or vomiting, sips of alkaline water may be helpful. If vomiting is frequent and troublesome, the intravenous administration of five per cent dextrose in isotonic solution of sodium chloride is indicated, as many patients who vomit become dehydrated and develop acidosis. From 200 to 400 cubic centimeters may be injected by the usual technic; this injection may be repeated if necessary, or larger amounts may be given by the continuous drip method (at the rate of fifty drops per minute). When dextrose is administered in this way, it should be supplemented with one milligram of thiamine hydrochloride for each twenty-five grams of dextrose.

(2) Coma may be present or imminent in cases of Plasmochin falciparum infection, even though parasites are not found in the blood smear. This condition constitutes a grave emergency. On reasonable suspicion of the diagnosis, parenteral treatment must be immediately instituted. The intravenous administration of quinine as described in paragraph 5 c (2) (b) is preferable in the light of present knowledge,

but it is possible that the intramuscular injection of atabrine is equally effective.

Recommended parenteral methods are as follows:[1]

(a) Atabrine dihydrochloride .2 gram (3 grains) in five cubic centimeters of sterile distilled water injected intramuscularly with the usual precautions into each buttock (total .4 gram or 6 grains). If necessary, one or two additional doses of .2 grams (3 grains) may be given intramuscularly at intervals of six to eight hours. As soon as the patient can take and retain oral medication atabrine should be given by mouth in such doses as to give a total by both routes together of one gram in forty-eight hours, followed by .1 gram three times a day after meals for five days (total 2.8 grams in seven days).

(b) Quinine dihydrochloride .6 gram (10 grains) in sterile isotonic solution of sodium chloride 300 to 400 cubic centimeters (minimum 200 cubic centimeters) injected intravenously with the usual precautions, especially avoiding speed. If necessary, there should be no hesitation to cut down to the vein. This treatment may be repeated in six to eight hours if the situation demands it. When the patient can take and retain oral medication, give a complete course of atabrine (preferable) or quinine by mouth as described for uncomplicated cases in paragraph 5 b.

d. General care: (1) Keep the patient in bed. Maintain fluid intake at three to four liters per twenty-four hours, using the intravenous route if necessary. Since many patients with malaria may lose a great deal of salt, be sure that the intake of salt is adequate, giving supplementary amounts as may be indicated. Relieve chills by hot-water bags and blankets. Relieve high fever by cold sponges and packs (avoid antipyretics). If a sedative is necessary, use one of the barbiturates. In all cases of Plasmochin falciparum infection observe the patient closely for signs of cerebral or circulatory collapse.

1. In emergencies, when atabrine and quinine for parenteral use are not available, quinine sulfate may be given by rectum, using a dose of one or two grams mixed with a starch paste, thin enough to run through a rectal catheter. This route should not be used more than once or twice.

(2) Patients with clinical malaria or parasitemia should be in screened wards or under mosquito bed nets (with care that they do not sleep against the nets).

(3) In convalescence give a generous high vitamin diet, together with ferrous sulfate .6 gram (10 grains) three times a day after meals for at least two weeks (preferably longer).

6. *Relapses.*—a. Occurrence: A certain percentage of patients with malaria suffer recrudescences or relapses in spite of any available treatment. The incidence and persistence of recurrences are greatest in Plasmochin vivax infections. For this reason the original incidence of the species of infection cannot be estimated from their distribution in a group of patients with recurrent clinical activity. The first free interval may be as short as two or three weeks; later on the intervals grow longer and may be many months. With each successive relapse the chance that it will be the last increases. This is one reason why the evaluation of treatment plans in relapses is difficult.

b. Diagnosis: The diagnosis of late relapses is often difficult. As long as a patient remains in an endemic area the distinction between reinfection and relapse is practically impossible. Relapses should be suspected in all patients who have a history of malaria. Exposure, strenuous activity, alcoholic indulgence, trauma, and surgical procedures frequently precipitate serious recurrences. If fever occurs under these circumstances or without other explanation in men in or from endemic areas, malaria should be suspected. If facilities for blood examination are not available, treatment should be instituted without delay. It is desirable, however, to prove the diagnosis, especially when relapses are suspected after a long interval. In a certain proportion of latent cases (but not all) the subcutaneous injection of .5 cubic centimeters of 1:1,000 solution of epinephrine results in finding parasites in the peripheral blood when they are not otherwise seen. In suitable cases this method may be tried. Routine efforts by this or other means to bring out parasitemia or to precipitate relapses in large groups of men who are free of symptoms are inadvisable.

c. Drug administration: There is no reason to believe that treatment with atabrine or quinine in the absence of parasitemia and clinical relapse has any influence on the future occurrence of relapses; treatment is not recommended, therefore, for patients who are free of symptoms or those in whose blood parasites are not found. In general, the treatment of relapses should be the same as that of first attacks. Prolongation of maintenance doses of atabrine to a total period of two or three weeks may be tried. In cases of repeated relapses in spite of atabrine therapy, when it is especially desired to try to prevent further relapses, the quinine treatment described in paragraph 5 b may be used and continued with a daily dose of .6 gram (10 grains) to a total period of three or four weeks; but such instances must be kept to a minimum in order to conserve quinine.

7. *Records, Follow-Up.*—In order to accumulate information which will be of value in determining the efficacy of treatment plans, medical officers responsible for the care of patients with malaria should use a few well-defined plans, such as those given in this circular letter. Patients should fall into a few clear-cut treatment groups, so that the results can be gathered together from time to time for study. Data should be recorded showing the whole course of the patient's malarial history. Only by means of information which is continuous can the need of prolonged follow-up be met. The following points are illustrative of basic data which are required:

a. Previous history:

(1) Dates of first entry into endemic region and of any subsequent return to an endemic area.

(2) Suppressive treatment at various times: dates, drug, doses, regularity, intermissions.

(3) Clinical attacks: dates; interval following cessation of suppressive treatment; break-through during suppressive treatment; courses of clinical treatment in detail; duration of symptoms; intervals between relapses.

(4) Date of removal from endemic area.

(5) Date of arrival in continental United States.

b. Present attack or relapse:

(1) Diagnosis by smear, including malarial species.

(2) Dates of beginning of symptoms, institution of treatment, and cessation of fever.

(3) Rate of disappearance of parasites and date of their final disappearance.

(4) Full clinical notes, including symptomatology and exact plan of drug administration.

BACILLARY DYSENTERY: A RESUME OF THE DISEASE AND ITS MODERN TREATMENT

EDWARD L. TURNER, M.D., Nashville*

In Section 8 in his "Of the Epidemics," Hippocrates[1] writes: "And many and serious complaints attacked many persons in the region of the belly. In the first place, tenesmus, accompanied with pain, attacked many, but more especially children, and all who had not attained to puberty; and the most of these died. There were many cases of lientery and of dysentery; but these were not attended with much pain. The evacuations were bilious, and fatty, and thin, and watery; in many instances the disease terminated in this way, with and without fever; there were painful tormina and volvuli of a malignant kind; copious evacuations of the contents of the guts, and yet much remained behind; and the passages did not carry off the pains, but yielded with difficulty to the means administered; for in most cases purgings were hurtful to those affected in this manner; many died speedily, but in many others they held out longer. In a word, all died, both those who had acute attacks and those who had chronic, most especially from affections of the belly, for it was the belly which carried them all off." In his recorded observations of this particular epidemic one must conclude that Hippocrates had seen some severe cases of dysentery.

Bacillary dysentery has always been one of the great problems facing military surgeons as well as civilian physicians. It was one of the great scourges of the old Persian armies; it played a great part in the production of casualties during the Crimean War and helped to decimate Napoleon's armies as they retreated from Moscow. Although it was not one of the major medical problems of the Western Front in World War I, it created havoc among the British troops in the Gallipoli campaign where Manson-Bahr[2] states it was responsible for the majority of the 120,000 medical casualties evacuated from the peninsula within three months' time. Probably dysentery had as much to do with the defeat experienced there as had the Turks and Germans.

Callender[3] has pointed out in his studies that bacillary dysentery in the army of the United States has shown an increase during periods of military activity. Weil[4] indicated that bacillary dysentery has been on the increase in the United States during the past ten years. He points out that in the cases reported in twenty-one states, there has been a marked increase in bacillary dysentery, while there has been an equally marked decrease in the number of unclassified dysenteries reported. In the same area during this period there has been a steady fall in the number of typhoids and paratyphoids reported.

Bacillary dysentery occurs most frequently in the warm months and outbreaks are closely related to sanitation. Flies undoubtedly play a role in spreading the disease as Topley[5] and Dudgeon[6] have indicated. Griffitts[7] has recently demonstrated that ants can carry the dysentery bacilli on their feet from infected matter to unprotected food. In some areas water acts as a medium of infection. The vehicle by which dysenteric infection is carried from one locality to another is rather exclusively man. (Weil[8].)

Carriers among human beings are of great importance in evaluating the problem of the spread of bacillary dysentery. Probably not less than one per cent, and possibly many more, of the individuals with Flexner infections become carriers. Weil has pointed out that in studies of more than six thousand healthy individuals in New York City over two per cent were carriers. In other studies in New Mexico, Georgia, and Puerto Rico, the incidence of carriers among individuals with no history of diarrhea or recent intestinal complaints was 3.2 per cent. Convalescents from recent diarrheic disorders can harbor dysentery bacilli for months, and since they are otherwise healthy they may be serious sources of possible spread of their disease. Bojlen[9] and Kobayashi[10] definitely feel that the convalescent temporary carrier is the most im-

*From the Department of Medicine, Meharry Medical College, Nashville.

portant source of spread of the infection. It should be pointed out that there is a group of human individuals harboring dysentery bacilli who are suffering from chronic dysentery and that investigators feel that these cases may also be a minor cause of the spread of the infection.

In practice Strong[11] states that for purposes of diagnosis and treatment it is sufficiently satisfactory to separate the important dysentery bacilli into two main types. These are: (1) Shigella dysenteriae (Shiga-Kruse) which produce no acid in mannite media, and do not form indol; (2) Shigella paradysenteriae (B. Flexneri, etc.) which produce acid in mannite media and form indol.

In general, Shiga's bacillus occurs more frequently in the tropics than in the temperate regions and is responsible for the more severe clinical forms and the most virulent epidemics. Besides the true dysentery bacilli which fall under the two general headings mentioned above, there are also "dysentery-like" bacilli such as Morgan's bacillus which are associated with diarrheic conditions and which add to the general confusion in regard to the complete picture of the bacteriology of dysentery.

The clinical picture produced by bacillary dysentery infections is an exceedingly variable one. The diagnosis of the severe forms is not particularly difficult. In the more severe cases the patient, after a short incubation period of from a few hours to six or seven days, usually becomes acutely and seriously ill. The griping pains, tenesmus, frequent, loose, scanty, and bloody stools are fairly typical. These severely ill patients have, in truth, what Manson-Bahr calls "lying down dysentery." The speed with which these patients can become toxic, dehydrated, and dangerously ill is astonishing, and early diagnosis and adequate treatment are essential if lives are to be saved. However, it must be emphasized that dysenteric infections are not always associated with diarrheic manifestations. While the acute cases occurring in epidemics may be associated with anywhere from twenty to sixty or seventy stools daily, many of the cases of mild dysentery may have only a little general malaise, a slight fever, and a few loose stools. In fact, epidemics have been reported where nausea and vomiting have been the only clinical manifestations of importance.

Manson-Bahr[12] and many other authorities in this field believe that some of the vague diagnostic terms such as "summer diarrhea," "intestinal flu," "acclimatization diarrhea," and others should be completely discarded from the vocabulary of physicians. These conditions, when thoroughly studied, are usually found to be infections with Sonne bacilli and organisms of the Flexner group. It is very important that physicians have properly conducted laboratory studies made whenever these slight disturbances occur. Such studies will quickly reveal the fallacy of diagnosing "intestinal flu" and other "refuge" terms.

The stools of a typical bacillary dysentery patient contain very little feculent material. The fresh specimen shows, in addition to the dysentery bacilli, pus cells and large endothelial macrophages. These macrophages are almost diagnostic of bacillary dysentery when they are present, and must be differentiated from ameba since they contain red blood corpuscles also. In warm preparations ameba, if present, will show motility, while the macrophages of the bacillary dysentery stool are nonmotile. The dysentery bacilli can be grown easily in the laboratory and then tested with antisera and other means to determine their species.

Protection against infection from dysentery bacilli is largely a matter of personal hygiene and adequate care in the handling of dysentery patients by physicians, nurses, and other attendants. The same general sanitary measures employed in preventing other enteric infections are necessary in the prevention of the spread of bacillary dysentery. Although evidence gradually accumulates that prophylactic vaccination may ultimately be of some value, the available evidence does not warrant the recommendation of the use of dysentery vaccines as a general prophylactic measure. The SGO Circular Letter (12) from the office of the Surgeon General of the United States Army, dated February 2, 1943, also states that the value of vaccination has never been

satisfactorily demonstrated for this disease.

Until the advent of the sulfonamides the treatment of bacillary dysentery was not very satisfactory. If one was fortunate enough to be located where laboratory facilities could quickly determine the type of organism, and where specific antidysenteric sera were available, sometimes much benefit resulted from the use of monovalent Shiga dysentery serum. Many polyvalent sera have been prepared for bacillary dysentery, but their value has been questionable. It is certainly true that if serum is to be used, it must be given in adequate quantities, and the earlier it is given the better the potential results. In acute dysentery cases from sixty to eighty cubic centimeters of serum can be given intravenously twice daily after testing the patient for sensitivity. It is best to give the serum well diluted in normal saline and always administer it slowly. Such quantities of serum can be repeated for three to four days, or until the temperature falls to normal level.

It was formerly common practice to purge patients with bacillary dysentery. Clinicians frequently gave magnesium sulfate, sodium sulfate, or castor oil at the beginning of the treatment on the theory that they were washing out bacteria and toxic materials. One wonders how many patients already seriously dehydrated from their dysentery had their "fluid balance" still further and more dangerously disarranged by such procedures. Fortunately, during the past several years, advocation of this method of purging as a routine part of therapy in bacillary dysentery has been gradually disappearing from our textbooks.

At the present time sulfaguanidine is the drug of choice in the treatment of acute bacillary dysentery. For an average adult the initial dose should be 3.5 grams. Because of its relatively low solubility the follow-up doses can be maintained at the level of 3.5 grams every four hours around the clock. This is continued until the number of stools is reduced to four or five during a twenty-four-hour period. Subsequent doses of 3.5 grams of sulfaguanidine are then given, the clock around, every eight hours until the stools have been normal for four days. If the patient does not respond satisfactorily, the drug should be discontinued after a week, other methods then being resorted to.

If sulfaguanidine is not available, it is possible to use sulfathiazole or sulfadiazine. For an average adult the initial dose is four grams either in a single dose or in divided doses of two grams given two hours apart. Because these drugs are more toxic than the sulfaguanidine, the follow-up dose is one gram every four hours around the clock. Roberts and Daniels[13] recently reported their results in the treatment of 225 soldiers ill with a Shigella paradysenteriae Boyd-88 type dysentery with succinyl sulfathiazole. They observed that the succinyl sulfathiazole did not shorten the relatively short lasting disease, but that it did reduce the incidence of carriers from 18.2 to 2.6 per cent.

Chronic bacillary dysentery is treated with administration of 3.5 grams of sulfaguanidine every eight hours around the clock until adequate results have been obtained. Such treatment should not be kept up longer than two weeks.

It is still important to call attention to the fact that the intensive use of sulfonamides in therapy should be accompanied by adequate fluid intake, thereby keeping up a daily urinary output of 1,500 cubic centimeters or more to avoid crystal deposition in the urinary tract. Because of the dehydration and the toxemia observed in the average bacillary dysentery case, it is advisable that a fluid intake of at least 3,000 cubic centimeters per day be kept up. In the severe cases the fluid intake may have to be maintained by the use of intravenous saline and glucose.

The remainder of the treatment of bacillary dysentery is symptomatic and supportive. These patients should be at absolute rest in bed. Their abdominal discomfort frequently is greatly alleviated by the use of heat in the form of a hot-water bottle or an electric pad. The tenesmus is so troublesome at times that morphine is required to give rest. The diet is important and sometimes difficult to arrange. These patients develop an anorexia frequently from the fear of eating because it initiates increased intestinal peristalsis. Frequent

small feedings of liquid material are best in the acute stages. For some reason bacillary dysentery patients do not do well on milk unless it has been treated with citric acid or prepared in the form of protein milk. Bouillon, lactose and tea, small eggnogs with a dash of brandy, and foods of this type are helpful. Every effort should be made to administer a high caloric diet containing an adequate amount of protein, moderate amount of fat, and easily assimilable carbohydrate. Any residue-forming food should be avoided early in the illness. As the patient improves custards, soups, cereals, and other easily digested foods can be added. Feedings should continue to be small and frequent until the patient is well along in convalescence.

The complications of bacillary dysentery, such as arthritis, eye disorders, parotitis, and the sequelae, such as stenosis, neuritis, persistent colitis, and the development of the bacillary dysentery carrier, are all problems that must be handled as these various situations arise. As indicated earlier in this résumé, probably three per cent or more of recovered cases of bacillary dysentery develop a carrier state that may last for several months to a year or longer. Proper hygienic education is definitely required in the case of these carriers, as well as therapeutic efforts to rid them of their bacteria.

BIBLIOGRAPHY

1. Adams, F.: "The True Works of Hippocrates." Williams and Wilkins, Baltimore, 1939.

2. Manson-Bahr, P. H.: "Manson's Tropical Diseases." William Wood and Company, Baltimore, 1938.

3. Callender, G. R., and Inmon, E. H.: Army Medical Bulletin, Canal Zone, July, 1939.

4. Weil, A. J.: "Progress in the Study of Bacillary Dysentery." Journal of Immunology, 46: 13-46, January, 1943.

5. Topley, W. W. C., and Wilson, G. S.: "The Principles of Bacteriology and Immunity." Second edition. William Wood and Company, Baltimore, 1936.

6. Dudgeon, L. S.: "Studies of Bacillary Dysentery Occurring in the British Forces in Macedonia." Medical Research Council Special Report Series, No. 40, London, 1919.

7. Griffitts, S. D.: Science, 96: 271, 1942.

8. Weil, A. J. See 4, above.

9. Bojlen, K.: "Dysentery in Denmark." Communications de L'Institut Serotherapique de l'Etat Danois, 241, 1934.

10. Kobayashi, R.; Ohkubo, H.; Ohno, J.; Ide, M.; Nakamura, B.; Machida, S.; and Kobajashi, E.: Kitasato Archives of Experimental Medicine, 8: 99, 1931.

11. Strong, R. P.; "Stitt's Diagnosis, Prevention, and Treatment of Tropical Diseases." Volume II, The Blakiston Company, Philadelphia, 1942.

12. SGO Circular Letter No. 33: "Treatment and Control of Certain Tropical Diseases." War Department, Office of the Surgeon General, February, 1943.

13. Roberts, T. L., and Daniels, W. B.: "Succinyl Sulfathiazole in the Treatment of Bacillary Dysentery." Journal of American Medical Association, 122: 653, July, 1943.

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in two categories as follows: first, those who have been commissioned and are on duty; second, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	Ransom R. Buchholz	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Newton A. Cannon	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Lee Farrar Cayce	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Dan C. Gary	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James W. Harrison	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Nathan P. Horner	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville
Davidson	Rudolph A. Light	Nashville
Davidson	Jas. A. Loveless	Nashville
Davidson	J. P. Lowe	Nashville
Davidson	Sol Lowenstein	Nashville
Davidson	Jas. R. McMillan	Nashville

*Deceased.

Davidson—Robt. H. Magruder—Nashville
Davidson—C. G. deGutierrez-Mahoney—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Chas. A. Mella—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—E. White Patton—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Melvin M. Simmons—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—H. M. Truebger—Nashville
Davidson—William H. Tucker—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Hugh Amos—Old Hickory
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Greene—John G. Zirkle—Greeneville
Hamblen—Robert A. Purvis—Morristown
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Walter Buckner, II—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—Carl A. Hartung—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—E. F. McCall—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar
Hardeman—Wiley D. Lewis—Bolivar

Hardeman—M. J. Stewart—Whiteville
Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville
Hawkins—A. S. Yates—Rogersville
Haywood—Robert C. Berson—Brownsville
Henderson—R. M. Conger—Lexington
Henry—J. W. Didcoct—Paris
Henry—Arthur C. Dunlap—Paris
Henry—J. C. McKissick—Paris
Henry—Geo. H. McSwain—Paris
Hickman—Wm. L. Phillips—Centerville
Jefferson—William B. Malcolm—Dandridge
Jefferson—Frank L. Milligan—Jefferson City
Knox—A. J. Weber—Bearden
Knox—Malcolm F. Cobb—Concord
Knox—B. B. Mitchell*—Fountain City
Knox—Charles M. Armstrong—Knoxville
Knox—Spencer Y. Bell—Knoxville
Knox—R. G. Brashear—Knoxville
Knox—A. M. Carr—Knoxville
Knox—E. E. Carrier—Knoxville
Knox—Jack Chesney—Knoxville
Knox—L. W. Chesney—Knoxville
Knox—H. S. Christian—Knoxville
Knox—H. E. Christenberry, Jr.—Knoxville
Knox—Sam M. Cooper—Knoxville
Knox—Sam P. Davidson—Knoxville
Knox—T. P. Day—Knoxville
Knox—W. A. DeSautelle—Knoxville
Knox—T. B. Drinnen—Knoxville
Knox—Richard N. Duffey—Knoxville
Knox—J. Gilbert Eblen—Knoxville
Knox—Jas. B. Ely—Knoxville
Knox—Frank Faulkner—Knoxville
Knox—Peter J. Flippin—Knoxville
Knox—Edgar L. Grubb—Knoxville
Knox—Glenn D. Grubb—Knoxville
Knox—Geo. G. Henson—Knoxville
Knox—Oliver W. Hill, Jr.—Knoxville
Knox—C. R. Huffman*—Knoxville
Knox—C. E. Irwin—Knoxville
Knox—Willard J. Irwin—Knoxville
Knox—H. H. Jenkins—Knoxville
Knox—J. O. Kennedy—Knoxville
Knox—A. H. Lancaster—Knoxville
Knox—R. P. Layman—Knoxville
Knox—J. H. Lesher—Knoxville
Knox—J. D. McCullough—Knoxville
Knox—Wm. T. McPeake—Knoxville
Knox—J. L. Montgomery—Knoxville
Knox—Wm. S. Muse—Knoxville
Knox—E. P. Nicely—Knoxville
Knox—Ralph Nichols—Knoxville
Knox—B. M. Overholt—Knoxville
Knox—Jos. B. Parker, Jr.—Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr.—Knoxville
Knox—Herschel Penn—Knoxville
Knox—Jarrell Penn—Knoxville
Knox—H. L. Pope—Knoxville
Knox—John S. Powers, Jr.—Knoxville
Knox—John A. Range—Knoxville

*Deceased.

Knox—Jos. L. Raulston, Jr.—Knoxville
Knox—Hugh C. Reaves—Knoxville
Knox—J. W. Riggs—Knoxville
Knox—J. S. Ruffin, Jr.—Knoxville
Knox—J. H. Saffold—Knoxville
Knox—A. B. Shipley—Knoxville
Knox—P. D. Smith—Knoxville
Knox—J. M. Stockman—Knoxville
Knox—Geo. W. Tharp—Knoxville
Knox—Phil Thomas—Knoxville
Knox—Fred West—Knoxville
Knox—Jacob M. Williams—Knoxville
Knox—Leon J. Willien—Knoxville
Lake—W. T. Rainey—Tiptonville
Lauderdale—J. H. Nunn—Ripley
Lauderdale—W. Val Sanford—Ripley
Lawrence—L. C. Harris, Jr.—Lawrenceburg
Lincoln—R. E. McCown—Fayetteville
Lincoln—Ben H. Marshall—Fayetteville
Lincoln—M. C. Woodfin—Fayetteville
Lincoln—E. S. Leek—Petersburg
Loudon—F. E. Hufstedler—Lenoir City
Loudon—Avery Leeper—Lenoir City
McMinn—S. B. McClary, Jr.—Etowah
McMinn—A. W. Reeser—Athens
McMinn—Lester H. Shields—Athens
McNairy—T. N. Humphrey—Selmer
McNairy—H. O. Mason—Adamsville
Madison—L. D. Farragut—Bemis
Madison—Roderick C. Webb—Bemis
Madison—Everett Archer—Jackson
Madison—C. H. Brown—Jackson
Madison—W. B. Camp—Jackson
Madison—J. E. Douglass—Jackson
Madison—R. S. Hellmann—Jackson
Madison—Frank A. Moore—Jackson
Madison—Roy M. Neudecker—Jackson
Madison—Carl Rogers—Jackson
Madison—A. R. Taylor—Jackson
Madison—J. R. Thompson, Jr.—Jackson
Madison—P. E. Wylie—Jackson
Madison—Stevens Byars—Mercer
Marion—Russell B. James—South Pittsburg
Marshall—A. L. Cooper—Chapel Hill
Marshall—H. B. Disharoon*—Lewisburg
Maury—W. N. Cook—Columbia
Maury—Robin Lyles—Columbia
Maury—J. B. Miller—Columbia
Maury—E. K. Provost—Columbia
Monroe—D. F. Heuer, Jr.—Sweetwater
Monroe—R. M. Price—Sweetwater
Montgomery—J. A. Culbertson—Clarksville
Montgomery—John H. Ledbetter, Jr.—Clarksville
Montgomery—Phillip Lyle—Clarksville
Morgan—R. A. Steadman—Wartburg
Obion—Hal E. Bennett—Troy
Obion—Edward W. Barksdull—Union City
Obion—R. M. Darnall—Union City
Obion—R. G. Latimer, Jr.—Union City
Overton—H. B. Nevans—Livingston
Pickett—Floyd B. Hay—Byrdstown
Polk—Henry S. Harris—Benton
Polk—J. H. Lillard—Benton
Polk—H. H. Hyatt—Copperhill
Putnam—H. H. Taylor—Cookeville

Putnam—R. L. Akin—Monterey
Roane—L. A. Killeffer—Harriman
Roane—G. D. Schuessler—Oliver Springs
Roane—F. Davis Owings—Rockwood
Robertson—J. C. Lunderman—Orlinda
Robertson—W. P. Stone—Springfield
Rutherford—Harvey W. Carter—Murfreesboro
Rutherford—Thos. G. Gordon—Murfreesboro
Sevier—John A. Conroy—Newton, Mass.
Sevier—Charles E. Pack, Jr.—Sevierville
Sevier—R. M. Perry—Sevierville
Shelby—J. H. Adler—Memphis
Shelby—R. Roger Anderson—Memphis
Shelby—Chas. G. Andrews—Memphis
Shelby—J. M. Aste—Memphis
Shelby—Edward R. Atkinson—Memphis
Shelby—Chas H. Avent—Memphis
Shelby—J. C. Ayres, Jr.—Memphis
Shelby—James M. Bethea—Memphis
Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—R. F. Bonner—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—W. T. Braun, Jr.—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—James H. Collins—Memphis
Shelby—John Kerr Crawford—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—W. F. Dobyns—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Harold Feinstein—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—Paul Hill Goodman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Wm. E. Hurt—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingram—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Richard King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Chas. K. Lewis—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Wm. M. Lovejoy—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Geo. E. Paullus, Jr.—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—M. L. Pepper—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—G. S. Plog—Memphis
Shelby—Ira F. Porter—Memphis

Shelby—Hugh R. Raines—Memphis
Shelby—S. L. Raines—Memphis
Shelby—R. Beverley Ray—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Hal S. Rhea—Memphis
Shelby—Chas. G. Robinson—Memphis
Shelby—Wm. A. Runkle—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—Lee Jess Seargeant, Jr.—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—Bryant S. Swindoll—Memphis
Shelby—B. S. Taley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis
Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—Jack Viscofsky—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis
Shelby—J. E. Watson, Jr.—Memphis
Shelby—Julian K. Welch, Jr.—Memphis
Shelby—S. I. Wener—Memphis
Shelby—Horace G. Williams—Memphis
Shelby—W. L. Wilhelm—Memphis
Shelby—Harwell Wilson—Memphis
Shelby—John M. Wilson—Memphis
Shelby—J. E. Wilson—Memphis
Shelby—C. Frank Yates—Memphis
Sullivan—J. W. Erwin—Blountville
Sullivan—Tom Kuhnert—Bristol
Sullivan—John Marcy—Bristol
Sullivan—G. W. McCall—Bristol
Sullivan—B. W. Mongle—Bristol
Sullivan—L. B. Snapp, II—Bristol
Sullivan—Myron J. Adams—Kingsport
Sullivan—F. L. Alloway—Kingsport
Sullivan—R. W. Asthalter—Kingsport
Sullivan—H. O. Bolling—Kingsport
Sullivan—R. H. Brown—Kingsport
Sullivan—H. S. Burem—Kingsport
Sullivan—W. C. Carreras—Kingsport
Sullivan—John B. Hamilton—Kingsport
Sullivan—R. B. Howard—Kingsport
Sullivan—K. R. Kiesau—Kingsport
Sullivan—M. D. Massengill, Jr.—Kingsport
Sullivan—J. F. Morton—Kingsport
Sullivan—R. G. Nichols—Kingsport
Sullivan—Raymond A. Steadman—Kingsport
Sumner—P. M. Huggins—Gallatin
Sumner—Benjamin A. Warren—Gallatin
Tipton—N. L. Hyatt—Covington
Tipton—J. S. Ruffin, Jr.—Covington
Tipton—O. J. Swisher—Covington
Unicoi—R. H. Harvey—Erwin
Unicoi—W. C. Humbert—Erwin
Unicoi—H. L. Monroe—Erwin
Union—Norman H. Rucker—Luttrell
Washington—C. M. Creech—Johnson City
Washington—H. B. Fuqua—Johnson City
Washington—C. S. Gresham—Johnson City
Washington—W. D. Hankins—Johnson City
Washington—Harry Myron, Jr.—Johnson City
Washington—W. L. Poole—Johnson City
Washington—W. G. Preas—Johnson City
Washington—Hugh F. Swingle—Johnson City
Washington—Charles P. Wofford—Johnson City
Washington—H. B. Cupp—Mountain Home
Washington—John Busey—Mountain Home
Washington—Ernest Marcus—Mountain Home
Weakley—Paul W. Wilson—Dresden
Weakley—Madison H. Buckley—Martin
Williamson—W. F. Roth, Jr.—Franklin
Wilson—O. R. Hill—Lebanon
Wilson—James McFarland, Jr.—Lebanon
Wilson—W. K. Tilley—Lebanon

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff—Clinton
Cannon—Carl E. Adams—Woodbury
Anderson—A. J. Butler—Clinton
Carter—John L. Chesnut—Elizabethton
Carter—E. T. Pearson—Elizabethton
Coffee—Wm. M. Minnis—Manchester
Davidson—E. E. Anderson—Donelson
Davidson—R. Z. Linney—Madison
Davidson—Joe E. Sutherland—Madison College
Davidson—J. J. Ashby—Nashville
Davidson—Edward H. Barksdale—Nashville
Davidson—Lynch D. Bennett—Nashville
Davidson—Randolph A. Cate—Nashville
Davidson—David W. Hailey—Nashville
Davidson—Andrew N. Hollabaugh—Nashville
Davidson—Thos. M. Jordan—Nashville
Davidson—J. K. Kaufman—Nashville
Davidson—Carl Kirchmaier—Nashville
Davidson—N. B. Morris—Nashville
Davidson—James C. Overall—Nashville
Davidson—James N. Owens—Nashville
Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville
Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—Trimble Sharber—Nashville
Davidson—T. Emerson Simpkins—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Herman Spitz—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville
Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Chas. W. Davis—Humboldt
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—John A. Brabson—Greeneville

Greene—Rae B. Gibson—Greeneville
Hamblen—M. J. Bellaire—Morristown
Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—H. P. Hewitt—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—John Moore—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Frank O. Nichols—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Maury—Leon S. Ward—Mt. Pleasant
Montgomery—B. H. Webster—Clarksville
Morgan—Wm. E. Gallion—Oakdale
Robertson—Raymond H. Hirsch—Whitehouse
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Sevier—J. Myron Mittleman—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—H. E. Atherton—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—James T. Bridges—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—Oliver S. Matthews—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Roland H. Myers—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Donald W. Oelker—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Leo F. Pierotti—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—R. O. Rychener—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—O. B. Stegall—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Shelby—John E. Whiteleather—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Washington—G. V. Stanton—Limestone
Wayne—Dexter L. Woods—Waynesboro
Weakley—R. W. Brandon, Jr.—Greenfield
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

NOVEMBER, 1943

EDITORIAL

The medical profession has long recognized the benefits of physiotherapy when properly used. At the same time, the profession recognizes the fact that this therapeutic agent is not readily available in many localities in this state, or in any other state for that matter.

In the last few years efforts have been made to standardize education in this field, and at the same time the American Physiotherapy Association has adopted and published a code of ethics.

On another page of this issue of this JOURNAL will be found a statement prepared by the Council on Medical Education and Hospitals of the American Medical Association on the Essentials of an Acceptable School for Physical Therapy Technicians. Included in this statement is a list of the approved schools for physical therapy technicians.

There is also a code of ethics and discipline, published by the American Physiotherapy Association.

Undoubtedly these are steps forward. A person who can present credentials that a course of training in an approved institution has been had and that he, or she, holds membership in the American Physiotherapy Association should be a sufficient testimonal as to the fitness of that person to administer this form of treatment to patients under the direction of a physician.

Some Further Developments in Connection with the Wagner-Murray-Dingell Bill (S. B. 1161)

According to a news item under a Washington headline, Mr. Murray, president of the C. I. O., gave a committee of the Congress quite a lecture. Among other things, he is alleged to have told the committee that Congress should not pass a sales tax. It should repeal the Victory Tax, and should pass the Wagner-Murray-Dingell Bill.

According to the story, Mr. Murray did not present data or reasoning to influence the action of the Reference Committee on these several measures. His statements were rather dogmatic.

The incident is worthy of comment for several reasons: First, because the committee has taken subsequent action to kill the Victory Tax and the Sales Tax.

Hearings on the Wagner-Murray-Dingell Bill have not been begun, secondly, because he recommended the passage of a bill which the medical profession of the nation believes to be opposed to the best interests of the people of the United States.

It is worth while also to consider for a moment the question, What gives the man such a potent voice? As before stated, he apparently did not present a lengthy argument supported by facts. He did not inform the members of the committee—he *told them* in language brief and to the point.

There is just one answer to the question as to what gives him the power to so speak to our representatives and apparently without resentment on the part of the committee members. It is the power of numbers. There are a million or so votes back of the man.

It is to be remembered also that the organization he heads is alleged to have a fairly large number of avowed communists in important positions.

Now, what is the logical line of defense on the part of American medicine to such an onslaught? In answering this question several related questions must be asked and

answered. Can we send a single individual to a committee hearing with a voice so potent? The answer is no. We have no such numbers. We have no such political powers back of a single individual. Our organization is along democratic lines. We were not organized for the single purpose of bettering the conditions of our members through political actions. It was not organized for selfish purposes at all.

Let us not kid ourselves into believing that the establishment of a legislative bureau in Washington would be able to exert such a potent force. Such a bureau would not have a million or so votes back of it, and, secondly, if the head of such a bureau should address a committee in such dictatorial fashion it likely would be recalled by our own membership, if not ordered out by the Congressional Committee.

Our strength lies in sound arguments and appeals to the American sense of freedom and fair play.

These arguments and appeals should be addressed not only to members of Congress, but to our patients who are the constituents of the congressmen.

I still confess a faith in the common sense of the average American citizen. I do not fail to recognize that so-called blocs have from time to time exercised a tremendous influence, but not for long.

We must recognize that in the common sense of the average American citizen lies the hope of our freedom and American institutions.

So then we must marshal our facts and arguments and address them to the 135,000,000 people whose way of life would be profoundly affected by the passage of this legislation.

The individual doctor who occupies no position of leadership must not leave this matter to the leaders. He must act in the circle in which he operates. He must be that committee of one in every community in this land.

The job of medical leadership, it seems to me, is to aid the hundred twenty thousand doctors who are to be the committees of one by supplying them with the essential facts and the stimulation necessary to make them active and potent.

DEATHS

Claude R. Huffman

Claude R. Huffman, naval lieutenant, Knoxville; University of Tennessee, College of Medicine, Knoxville, 1936; aged thirty-two; wounded in action on October 5 and died October 11. He entered military service in 1942 and was believed to have been somewhere in the South Pacific.

Young W. Haley

Young W. Haley, Nashville; Vanderbilt University, School of Medicine, Nashville, 1897; aged sixty-nine; died October 31, 1943.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

A. B. Thach, Jr., lieutenant, Medical Corps, U. S. N. R., Camp Lejeune, New River, North Carolina, to "E" Medical Company, Fourth Medical Battalion, Fourth Marine Division, Camp Joseph H. Pendleton, Oceanside, California.

E. L. Rippey, major, Medical Corps, Maxwell Field, Alabama, to Chicago Beach Hotel, U. S. General Hospital, Chicago, Illinois.

John K. Crawford, first lieutenant, Medical Corps, is in Camp Gordon, Georgia, with the Forty-Fifth Evacuation Hospital.

Walter D. Hankins, captain, Medical Corps, Station Hospital, Fort Banks, Boston, Massachusetts, to Cushing General Hospital, Framingham, Massachusetts.

John J. Eberhart, lieutenant commander, Medical Corps, U. S. N. R., Louisville, Kentucky, to U. S. Naval Hospital, Philadelphia, Pennsylvania.

The present address of M. L. Pepper, first lieutenant, Medical Corps, is Box 164, Station Hospital, Fort Jackson, South Carolina.

Dr. Everette Archer, Lawson General Hospital, Atlanta, Georgia, to Fort Douglas, Salt Lake City, Utah.

Harold M. Truebger, first lieutenant,

Medical Corps, formerly of Nashville, is now located at Fredericksburg Road, Route No. 8, Box 409, San Antonio, Texas.

Dr. Henry S. Burem, captain, Medical Corps, Army of the United States, formerly of Kingsport, has been decorated with the Purple Heart. He is in Oran, recovering from a wound of the shoulder received while serving in North Africa.—*Southern Medical Journal.*

COMMITTEE REPORTS

Arthur F. Cooper, M.D.
42 North Dunlap Street
Memphis, Tennessee

Physiotherapy

The importance of physiotherapy has become more and more recognized in the past two or three decades. Along with its development, the importance of adequately trained physiotherapists has become more and more recognized. The American Physiotherapy Association has done much, and is still striving to give physiotherapy a high and respected place along with other methods of treatment of injury and disease. In this time of war, when there are so many who are, and will be, in need of this type of treatment, it is highly important that everything possible be done to develop competent physiotherapists.

The information given here is very timely. Physiotherapy has been given an important place in the military and naval hospitals. The need of well-trained and ethical physiotherapists is great, not only in these hospitals, but in other institutions and offices where the crippled are treated.

J. J. Ashby, M.D., *Chairman,*
Committee on Physical Therapy.

The American Physiotherapy Association Code of Ethics and Discipline

(Adopted at A. P. A. Convention, Atlantic City, June, 1935)

I. Professional Practice

a. Diagnosing, stating of the prognosis of a case, and prescribing of treatment shall be entirely the responsibility of the physician. Any assumption of this responsibility by one of our members shall be considered unethical.

b. The patient shall be referred back to the physician for periodical examinations.

c. A member shall not attempt to criticize the physician or dictate technique or procedure.

II. Advertising

a. Members shall not procure patients by means of solicitors, agents, circulars, displays, or advertisements inserted in commercial periodicals.

b. Announcements in medical journals or business cards, not stating fees, are permissible. A statement that the work is medically supervised should appear on the announcement.

c. A member may use the term "Physiotherapist" or "Physical Therapist" on an office door.

III. Behavior

a. Members shall not indulge, before patients, in criticism of doctors, coworkers, or predecessors who have handled the case.

b. It is well to bear in mind that our reputation as individuals and a group depends upon professional accomplishments and upon adherence to the standards of our organization.

IV. Discipline

Charges and evidence against offenders will be weighed and acted upon by the Executive Committee.

Essentials of an Acceptable School for Physical Therapy Technicians

(Prepared by the Council on Medical Education and Hospitals of the American Medical Association. Revised June, 1943)

I. Organization

1. Acceptable schools for training physical therapy technicians should be conducted by accredited universities, medical schools, colleges, or hospitals.

2. The council has promulgated standards for this type of training to supply physicians, hospitals, and prospective students with reliable information and for the protection of the public.

3. Responsibility for schools in hospitals should be placed on the hospital administra-

tion rather than the director of the department. In colleges and universities this responsibility is on the controlling board as for other schools or departments.

4. Resources for continued operation of the school should be insured through regular budgets, gifts, or endowment; but not entirely through students' tuition fees. Experience has shown that commercial schools operated for profit frequently do not adhere to proper ethical and educational standards and are not acceptable.

5. There must be available records of high school, college work, and other credentials of students. Attendance and grades of students, together with a detailed analysis of their clinical experience, shall be carefully recorded, by means of which an exact knowledge may be obtained regarding each student's work.

6. At least four students should be enrolled in each class. One or more classes may be enrolled each year.

II. Faculty

7. The school should have a competent teaching staff. Appointments should be based on thorough education, training, and experience. The course of instruction shall be under the direction of a graduate in medicine who is qualified in the field of physical therapy. The staff should include not less than one qualified salaried instructor and in each institution where clinical practice is carried on not less than one qualified physical therapy technician for each six students. The question of full-time and part-time appointments is not as important as the qualifications of the instructors, who should be specialists or exceptionally well trained and well qualified in the lines they are teaching.

III. Facilities

8. Provision should be made for each student to receive clinical practice adequate in kind and amount under the supervision of a physician qualified in physical therapy in a hospital or other institution acceptable to the Council on Medical Education and Hospitals of the American Medical Association.

9. Adequate equipment should include anatomic charts, models, and other aids to effective teaching. It is suggested that the student dissect at least a lateral half of the human cadaver or have the benefit of demonstrations of such dissections, supplemented by the use of the skeleton and disarticulated bones.

10. A library of adequate space and availability and containing up-to-date references, texts, and scientific periodicals pertaining to physical therapy should be maintained.

IV. Administration

11. There should be careful and intelligent supervision of the entire school by an executive officer who, by training and experience, is fitted to interpret the prevailing standards in physical therapy education with sufficient authority to carry them into effect.

12. The admission of students to the physical therapy school must be in the hands of a responsible committee or examiner, whose records shall always be open for inspection. Documentary evidence of the student's preliminary education should be obtained and kept on file. When the physical therapy school is an integral part of the university, this work usually devolves on the university examiner.

V. Requirements for Admission

13. Candidates for admission should be able to satisfy one of the following requirements:

(a) Graduation from an accredited school of nursing.

(b) Graduation from an accredited school of physical education.

(c) Two years of approved college training including satisfactory courses in biology and other sciences.

Courses in general physics and chemistry, as well as biology, are highly recommended for all who seek to enter training in physical therapy.

14. Advanced standing may be granted to students for work done in other acceptable physical therapy schools or hospital departments, provided the entrance requirements and other essentials herein set forth have been met. Official verification of the student's previous physical therapy work should be obtained by direct correspondence with the schools previously attended,

and his preliminary qualifications should also be verified and recorded in a similar manner as for first-year students.

15. Health.—All applicants should be required to submit a physical health report including evidence of successful vaccination. All students should be given a medical examination under the supervision of the official school physician as soon as practicable after admission and this examination should include a roentgen examination of the chest.

VI. Publications

16. The school should issue, at least annually, a bulletin setting forth its organization, resources, entrance requirements, tuition fees, clinical facilities, affiliated hospitals, a detailed description of the courses, and the names of the members of the faculty with their respective qualifications.

VII. Curriculum

1. Length of Course. — The minimum length of full-time training for the course should be thirty-six weeks.

2. Distribution of time.

Subject	Clock Hours: Theory	Clock Hours: Practice		Qualifications of Instructors
a. Applied sciences				
Anatomy	210*			M.D. or other instructor qualified in specialty
Pathology	30			
Physiology	30		45	
Psychology	15			
Physics	Correlated with other subjects			
b. Procedures				
Electrotherapy	25		40	Qualified technician
Radiation Therapy†	5		5	
Hydrotherapy	5		15	
Massage	10		45	
Therapeutic exercise	30		75	
c. Physical therapy as applied to				
Medicine	15		30	M.D. for theory
Neurology	10		15	
Orthopedics	15		30	Qualified technician for practice
Surgery	15		30	
d. Ethics and administration	5			Qualified technician
e. Electives		50*		Qualified technician
f. Clinical practice		400*		M.D. and qualified technician
Totals	210	660	330	
	1,200 hours			

* Theory and practice.

† X-ray and radium therapy not included in course for physical therapy technicians.

Suggested electives: asepsis, bandaging, first aid, history of physical therapy, hygiene, joint measurements, journal club, public health, office routine, occupational therapy, records, social service.

Approved Schools for Physical Therapy Technicians

Council on Medical Education and Hospitals of the American Medical Association. Revised June, 1943

Name and Location of School	Entrance Requirements*	Emergency Course: Length in Months	Emergency Course: Classes Start	Emergency Course: Tuition	Emergency Course: Certificate, Degree, Diploma	Regular Course: Length in Months	Regular Course: Classes Start	Regular Course: Tuition	Regular Course: Certificate, Degree, Diploma
Army and Navy General Hospital, Hot Springs National Park, Ark.	b	6	Oct	None	Certificate	--	--	--	--
Children's Hospital, Los Angeles†	a-b-c	6	FebAug	$200	Certificate	12	FebAug	$200	Diploma
College of Medical Evangelists, Los Angeles†	a-b-c	--	--	--	--	12	JanJuly	$200	Certificate
University of California Hospital, San Francisco†	a-b-c	--	--	--	--	12	Feb	$150	Certificate
Stanford University, Stanford University, Calif.†	a-b-d‡	7	Quart.	$286	Certificate	10	Quart.	$401	Cert. or Degree
Fitzsimons General Hospital, Denver	b	6	Oct	None	Certificate	--	--	--	--
Walter Reed General Hospital, Washington, D. C.	b	6	Quart.	None	Certificate	--	--	--	--
Northwestern University Medical School, Chicago	a-b-d	--	--	--	--	9	JulyOct	$200	Certificate
State University of Iowa Medical School, Iowa City	b-c	6	MarSept	None	Certificate	9	MarSept	None	Certificate
Bouve-Boston School of Physical Education, Boston	HS	Given in conjunction with Harvard				3-4 yrs.	Sept	$400 yr.	Dipl. or Degree
Harvard Medical School, Boston	a-b-c	6	June	$200	Certificate	9	June	$250	Certificate
Boston University Sargent College of Physical Education, Cambridge, Mass.	a-b-c	--	--	--	--	24	JanOct	$435 yr.	Cert. & Degree
University of Minnesota, Minneapolis†	a-b-c§	--	--	--	--	12	Summer	$112°	Certificate
Mayo Clinic, Rochester, Minn.†	a-b-c	6	JanJuly	None	Certificate	9	JanJuly	None	Certificate
Barnes Hospital, St. Louis	a-b-c	--	--	--	--	9	Oct	$200	Certificate
St. Louis University School of Nursing, St. Louis†	HS	--	--	--	--	4 yrs.	JanSept	$250 yr.	Cert. or Degree
O'Reilly General Hospital, Springfield, Mo.	b	6	Oct	None	Certificate	--	--	--	--
University of Buffalo School of Nursing, Buffalo†	a-b-c	6	FebSept	$420	Certificate	1-3 yrs.	FebSept	$350	Cert. or Degree
Hospital for Special Surgery, New York City†	a-b-c	--	--	--	--	9	Sept	$300	Diploma
New York University, New York City†	a-b-c	--	--	--	--	9	FebSept	$396	Cert. & Degree
Cleveland Clinic Foundation Hospital, Cleveland	a-b-c	--	--	--	--	9	Sept	None	Certificate
D. T. Watson School of Physiotherapy, Leetsdale, Pa.†	a-b-c	6	JanJuly	$200	Diploma	12	July	$200	Diploma
Graduate Hosp. of the Univ. of Pennsylvania, Philadelphia†	a-b-c	--	--	--	--	12	Sept	$200	Certificate
Brooke General Hospital, San Antonio, Texas	b	6	Oct	None	Certificate	--	--	--	--
Richmond Professional Institute, Richmond, Va.	a-d◊	--	--	--	--	9-12	Sept	$200-220	Certificate
University of Wisconsin Medical School, Madison†	a-b	6	FebSept	$96°	Certificate	12	Sept	$96°	Certificate

* Courses are so arranged that any of the entrance requirements will qualify students for training. a—Graduation from accredited school of nursing; b—Graduation from accredited school of physical education; c—Two years of college with science courses; d—Three years of college with science courses; HS—High school graduation.

† Male students are admitted.

‡ High school graduates accepted for a four-year course leading to A.B. degree; students admitted quarterly and tuition is $143 per quarter.

§ Medical technology graduates with B.S. degree also admitted.

° Nonresidents charged additional fee.

◊ Those with degree from other colleges also accepted.

Negro Health Deficit Cited in Report*

Public Health Officials Urged to Include Child-Spacing in Program

Incorporation of child-spacing services into all state and community public health programs, as one means of solving some of the grim health problems still facing millions of Negroes in the United States, was urged by the Planned Parenthood Federation of America, Inc.

Calling attention to the high death and illness rates among Negro mothers and babies in the nation as plain proof of the need for extending education in family planning, the federation announced official publication of reports by Tennessee and South Carolina public health officials which show that even the most disadvantaged groups in the population will welcome and successfully employ medically approved methods of birth control as a means of planning their children. The reports cover the results of birth control demonstrations under public health auspices in the two Southern states over a two-year period. They are presented in a publication of the federation titled, "Better Health for Thirteen Million."

The Southern demonstrations were undertaken in Nashville, Tennessee, and in Berkeley and Lee Counties in South Carolina in recognition of the heavy health deficit among the Negro population of the country. The death rate of 13,000,000 American Negroes is fifty per cent higher than of whites and the average sickness rate is forty-three per cent greater. Negro mothers die at twice the rate of white mothers and Negro babies die at one and one-half times the rate of white babies.

The contribution which planned parenthood can make to the health of a family by helping mothers to regain their strength after a birth and before undertaking another pregnancy, or to postpone pregnancy in the presence of illness and disease, is a matter of conclusive medical evidence. The two Southern demonstrations were launched with the cooperation of national Negro leadership, to learn if even the most handicapped members of the population would be receptive to family planning, what methods and materials would prove most effective, what degree of sustained cooperation could be achieved and what follow-up would be required.

The reports of Dr. John Overton, Nashville public health officer, and Dr. Robert E. Seibels, chairman on maternal welfare of the South Carolina Medical Association, published provide the answers to these and other questions. Each location for the child-spacing demonstrations was chosen because of its opportunities as a proving ground. Both in Nashville and the South Carolina counties, the death rates among Negro mothers and babies were exceedingly high. Rates of stillbirths, tuberculosis, and syphilis were in all instances excessive. In the South Carolina counties there was an added handicap of poor roads, lack of communication, unusually high illiteracy. Public health nurses in both cases were enlisted to bring help in child-spacing to patient families, along with other normal health services.

In Nashville, over two years, 5,000 home visits were made by the nurses and 2,000 women urged to come to clinics for examination and service. Of the patients who accepted methods advised by physicians, eighty-eight per cent were successful in postponing pregnancy until health had been restored, according to Doctor Overton.

"There is evidence that this program has resulted in benefits to the individual family and to the whole community," Doctor Overton said.

In Berkeley County, South Carolina, Doctor Seibels reported, cooperation with any previous health program requiring sustained effort had not been higher than twenty-five per cent. There, in twenty-one months, with the child-spacing services brought to more than 1,000 patients in their homes, more than eighty per cent accepted the theory and practice of contraception and were able to follow the simple methods prescribed. In Lee County the demonstration brought equally good results.

The pertinent conclusion drawn from the projects is that public health programs in

*Public Information Department. Planned Parenthood Federation of America, Inc. 501 Madison Avenue, New York 22, New York.

every part of the country can be strengthened by extending child-spacing services to health-blighted groups still without knowledge or means of planning their children. With the use of the right psychology, properly-selected methods, and consistent follow-up, the results in terms of reduced wastage of human life and health become readily apparent.

The report also describes the results of three years of educational efforts through scores of Negro organizations to give the "rank and file" a knowledge of what planned parenthood can provide in benefits to Negroes generally and to the individual family. Nationally known Negro leaders have been working on the program with the Planned Parenthood Federation, including Dr. Walter G. Alexander, Dr. Charles S. Johnson, Mrs. Mabel K. Staupers, R.N., Arthur B. Spingarn, and Dr. Channing H. Tobias.

The response to educational efforts, according to the report, "demonstrates that Negro leadership is aware of the potentialities of child-spacing for health and improved family living." It also demonstrates that it is ready to assume proper responsibility for interpreting the program and aiding in integration into existing public health services.

In the foreword Dr. J. H. J. Upham, president, and Margaret Sanger, honorary chairman of the federation, assert that "we would be the first to concede that medically-guided programs of child-spacing represent only a partial answer to the economic and health needs of American Negroes today." But they do say: "The cost of extending public health programs to include child-spacing is minute when weighed against the possible ultimate price of impaired health, delinquency, and death—or when weighed against the positive gain in welfare and health, obviously needed in both urban and rural areas."

Dr. Charles S. Johnson, director of the Department of Social Services at Fisk University and chairman of the Federation's National Advisory Council on Negro Problems, stressed the importance of extending family planning through public health programs in a letter transmitting the reports.

"The war should not divert us from the fact that many millions of our children still are being born to families that can give them little in health or security or happiness," Doctor Johnson states. ". . . We can hope that opportunities for the average Negro family to raise its living standards will progressively widen. In the meantime the extension of child-spacing knowledge and services to reach many more Negro families is an important step that can be taken toward better health for all Americans."

The federation points out that seven states, and many more cities, are already making child-spacing a normal part of their public health services. It concludes:

"The time is ripe for more."

To the Members of the Tennessee State Medical Association:

A number of our members have been solicited by a fairly well-known assessment insurance association for accident and illness coverage under a so-called group policy. Their presentation is very plausible and the false impression left with the one interviewed is well grounded.

The committee desires to state for the information of all concerned only two companies, and no others, have been authorized to offer insurance of this type to our members—the Commercial Casualty and the National Casualty. We have at no time endorsed any other company or any plan of any other company; in fact, no other company has ever submitted to us any plan or contract for investigation or consideration.

Information we have received about the company in question forces us to the conclusion that under no circumstances would we recommend it to anyone desiring accident and health insurance.

(Signed) A. F. Cooper, M.D., *Chmn.*
Kyle C. Copenhaver, M.D.
C. M. Hamilton, M.D.
Committee.

NEWS NOTES AND COMMENTS

Dr. John M. Boylin announces the opening of his office at 924-925 Bennie-Dillon Building, Nashville, Tennessee.

Dr. Milton C. Wiggins of Paris, Tennessee, is now located at 1930 East Fourth Street, Tucson, Arizona.

Dr. W. C. Ramer of Lexington has moved to Ripley, Tennessee.

The following letter has just been received from Mrs. Frank E. Whitacre, 949 Chiltern Road, San Mateo, California:

Editor, THE JOURNAL OF THE TENNESSEE STATE MEDICAL ASSOCIATION
508 Doctors Building
Nashville, Tennessee
Dear Sir:

"In your JOURNAL of March, 1942, you published in the editorial section an article concerning my husband, Dr. Frank E. Whitacre, who has been interned in Manila by the Japanese since January, 1942. I know our many friends in Tennessee will be interested to know that Doctor Whitacre, as announced by the State Department, is a repatriate on the M. S. Gripsholm, which is expected to arrive in New York on or about December 2, 1943.

Sincerely yours,
"LILLIAN M. WHITACRE."

EMERGENCY MATERNITY AND INFANT CARE PROGRAM

We have received several letters and a number of inquiries about the Emergency Maternity and Infant Care Program of the United States Children's Bureau. The matter was discussed with Dr. R. H. Hutcheson, commissioner, Department of Public Health, and an authoritative statement secured from him as to the operation of the bureau.

It will be remembered that before this program was completed it was submitted to the meeting of the Board of Trustees of the Tennessee State Medical Association. The only action that could be taken at that time was to approve the principle involved.

Details of the plan were worked out by the Children's Bureau and the various departments of health of each state. Some of the details of the plan may not be approved by the individual doctors or by various state associations or their executive committees. However, we believe it will be of interest to have before us Commissioner Hutcheson's official statement:

"In accordance with our discussions concerning the emergency maternity and infant care program for the wives and infants of enlisted men of the fourth to seventh grades, inclusive, the following statements are submitted:

"The United States Children's Bureau submitted to the various state health departments instructions for preparing a plan for administration of the services under the Emergency Maternity and Infant Care Program. These instructions included fee schedules in detail which were suggested to the states. In the outline presented to the representative groups of the State Medical Association by this department, the maternity fees were identical to those suggested by the Children's Bureau. In the schedule for care of the sick infants, the maximum payment per week for care after the first week was increased from the suggested five dollars to ten dollars. At that time, the group that discussed the program reviewed the fee schedules and approved them with minor changes which were included in the plan forwarded by us to the Children's Bureau. Our plan was approved with the exception that the fee we suggested for major surgery and Caesarean section was reduced from fifty dollars to thirty-five dollars. After starting the program, it was found that the fee schedules were somewhat below the prevailing charges being made in private practice. Also it was learned through unofficial sources that several other states had approved schedules which were greater than ours. On September 10 we wrote the Children's Bureau requesting that our fee schedules and hospital rates be increased. This request was refused on the ground that estimates for funds had been made on the present rates and they were unable to ap-

prove increases during the current fiscal year.

"It is planned to review this program at the next meeting of the Public Health Council on November 4.

Yours very truly,

"R. H. HUTCHESON, *Commissioner.*"

The California Medical Association has sent a letter discussing the Maternity-Pediatric Program of the Federal Children's Bureau. Inasmuch as Tennessee doctors are interested in this same question, we are publishing a portion of the letter.

At the present time, the situation in California in regard to maternity-pediatric work is as follows:

1. The California Medical Association has expressed approval of the objective to provide adequate maternal-pediatric care to the wives and infants of enlisted men.

2. The Council of the California Medical Association has *not* given approval to the regulations of the Federal Children's Bureau whereby the payments *must* be made to the attending physician.

3. Members of the California Medical Association are free agents in this work—each physician to decide for himself under what conditions he is willing to give the indicated professional services.

Since the physician has the privilege of deciding for himself whether he will or will not participate in the plan outlined by the Federal Children's Bureau, the following additional information is given:

a. A physician is at liberty to sign Part II of the prospective mother's application (which she obtains from a local board of health, the same being a State Board of Health form), but in so doing the physician obligates himself to give the professional services stipulated for the money consideration also outlined. Further, the physician agrees that he will not accept additional compensation for the said services from the patient or patient's family. Provided, that services rendered prior to the day the prospective mother signed the application, or for services not stipulated in the prenatal, confinement, and post-partum agreement, may be charged against the patient. (It is important that the physician read the agreement and inform himself concerning the services he will be called on to render before he signs a prospective mother's application.)

b. Members of the California Medical Association are also free to determine for themselves whether they will accept such patients as private patients, under agreements mutually agreeable between patient and physician; but in such cases, the physician must refrain from signing the agreement which the health boards give to prospective mothers who make request therefor.

However, if this latter course of a personal agreement is followed, it is important to remember that the prospective mother will not be entitled to hospitalization or other benefits included in the Federal Children's Bureau program. (Note: This letter will be printed in "C. and W. M." for November.)

If additional information is desired concerning the Federal Children's Bureau program, the physician should consult the health departments (preferably his local health department).

Cordially yours,

KARL L. SCHAUPP, M.D.,
President.

PHILIP K. GILMAN, M.D.,
Council Chairman.

By GEORGE H. KRESS, M.D., *Secretary.*

DIRECTORY OF MEDICAL SPECIALISTS

Announcement is made that the Directory of Medical Specialists is now to be published by the A. N. Marquis Company of Chicago, publishers of "Who's Who in America." Previous editions have been published for the Advisory Board for Medical Specialties by the Columbia University Press of New York City.

It is planned not to issue the next edition before 1945, but the A. N. Marquis Company will publish a supplemental list of all those who have been certified by the American Boards since the last (1942) edition of the directory, totaling about 3,600.

The Editorial Board will be composed, as before, of the secretaries of the fifteen American boards.

Communications should be addressed to the Directing Editor, Directory of Medical Specialists, 919 North Michigan Avenue, Chicago 11, Illinois.

Can't write a thing, the censor's to blame.
Just say that I'm well and then sign my name.
Can't tell where I came from, can't mention the date;
Can't even number the meals that I ate.
Can't say where I'm going. Don't know where I'll land.
Can't tell the name of this foreign land;
Can't mention the weather, not even the rain;
All military titles must secrets remain.
Can't have a flashlight to guide me at night;
Can't smoke a cigarette except out of sight!
Can't be sure just what I can write,
So I'll call this a letter and kiss you goodnight.

(Signed) CAN'T SAY WHO, M. C.

MEDICAL SOCIETIES

Davidson County:

October 20—"Symposium on Diseases of the Thyroid in Children."

"Hyperthyroidism in Children," by Dr. N. S. Shofner.

"Hypothyroidism in Children," by Dr. J. C. Overall.

Dr. Murray C. Brown discussed "Venereal Disease Case Reporting as a Protection of the Patient-Physician Relationship."

November 3—Members of the Nashville Academy of Medicine and Davidson County Medical Society were guests of the Nashville Surgical Supply Company's annual dinner given at the Noel Hotel.

In addition to the local members of the academy, a number of medical officers from near-by military posts were present.

The meeting was in all respects equal, if not superior, to previous occasions. Each year since 1929 the society has been the honored guest of the company.

Hamilton County:

October 21—"Improved Methods of Skin Grafting," by Dr. D. B. Karr.

October 28—"Occupational Dermatitis," by Dr. Clarence Shaw.

November 11—Paper by Dr. H. H. Hampton.

Paper scheduled for November 18, "Peptic Ulcers," by Dr. J. B. Haskins.

Knox County:

October 26—"War and Tubercular Problems," by Dr. J. B. Naive.

November 9—"Pros and Cons of Socialized Medicine," by Dr. W. E. Cole, former professor of sociology at the University of Tennessee.

The program for the remaining part of the year is as follows:

November 23—"Carcinoma of the Cervix and Breast," by Dr. Herbert Acuff. Discusser, Dr. C. L. Chumley.

December 7—"Bronchiectasis," by Dr. David Waterman. Discusser, Dr. M. D. McCullough.

Madison County:

On October 19 the Madison County Medical Society in its first dinner session at the New Southern Hotel since June went on record as being strongly opposed to the Wagner "socialized medicine" bill and named a committee composed of Dr. J. L. Crook, chairman, Dr. Sam Parker, and Dr. J. C. Pearce to contact United States senators and Congressman T. J. Murray on the subject and also keep in touch with *The Jackson Sun*, which has already declared editorially as being against the measure. President Hermon Hawkins and Secretary Stanford Herron are ex officio members of the committee.

Much discussion was had of the Wagner measure, the physicians declaring that if enacted into law it would destroy the private practice of every physician in the United States and would impose a tremendous tax on the federal taxpayers of the country.

Each member contributed two dollars toward the National Physician Committee with all absentee members to be solicited

at a near date. The entire subscription will be sent in. This fund is set up for the purpose of aiding the medical world in publicity and protection.

A paper was read by Major Paul E. Wylie, chief X-ray physician at Camp Forrest, and a member of the association, using as his subject "Indications for X-ray Treatments in Certain Diseases."

Major George B. Hubbard, chief orthopedic physician at Camp Forrest, read a paper, using as his subject, "Management of Spine Fractures." Both papers were enjoyed and discussed by members of the society.

Twenty-two members were present and Dr. Robert Morris of Medina was a visitor.

The Madison County Medical Society met November 2 in its regular monthly meeting at the New South Hotel, with Dr. Herman Hawkins, president, presiding with nineteen members present.

The committee on the Wagner Bill, composed of Dr. Jere L. Crook, chairman, Dr. W. G. Saunders, Dr. Sam Parker, Dr. Alvin Rosenbloom, and Dr. J. C. Pierce, made reports on the work being done by this group. Letters were read which were written to Congressman Tom Murray, Senator Kenneth D. McKellar, Dr. Olin West, secretary of the American Medical Association; Dr. H. H. Shoulders, secretary of the Tennessee Medical Association; and Hon. Tom Stewart. The answers to these letters were also read.

Papers were read on the "Management of Cardiac Emergencies," by Dr. Donald W. Oelker, and "Surgery of Thyroid Gland," by Dr. Charles D. Olin. An open discussion was made on the contents of both of these papers.

Visitors present were Dr. G. E. Spangler, Humboldt, and Dr. Robert Morris, Medina.

Shelby County:

October 19—A meeting was held at the Kennedy General Hospital and an interesting program was presented by members of the staff.

November 2—Case Reports:

"Palindromic Rheumatism with Congenital Heart Disease," by Dr. David Scheinberg.

"Ruptured Amoebic Liver Abscess," by Dr. H. W. Greenburgh.

Papers:

"Malignant Melanoma," by Dr. Shields Abernathy. Discussion by Drs. E. C. Ellett and R. H. Rigdon.

"Psychiatric Aspects of the War and the Peace," by Dr. D. C. McCool. Discussion by Drs. C. C. Turner and W. C. Chaney.

OTHER MEDICAL SOCIETIES

The Ninety-Eighth Semiannual Meeting of the Middle Tennessee Medical Association was held at Mt. Pleasant on November 11. The following papers were read:

"Coronary Occlusion," by Dr. Samuel S. Riven, Nashville. Discussed by Dr. W. H. Witt, Nashville; Dr. C. C. Stockard, Lawrenceburg.

"Low-Back Pain and Sciatica," by Dr. R. W. Billington, Nashville. Discussed by Dr. J. J. Ashby, Nashville; Dr. Harry Guffee, Franklin.

"Symposum on Burns":

(a) "Systemic Treatment," by Dr. Carrington Harrison, chief surgeon, Vultee Aircraft Corporation, Nashville.

(b) "Local Treatment," by Dr. Oscar G. Nelson, Nashville.

(c) "Plastic Treatment," by Dr. Beverly Douglas, Nashville.

Discussed by Dr. Monroe Ruch, first lieutenant, Medical Corps, Surgical Service, Thayer General Hospital, Nashville; Dr. Randolph Cate, Nashville; Dr. V. H. Griffin, Clarksville; Dr. Richard Strain, Murfreesboro.

"Placenta Praevia," by Dr. Sam C. Cowan, Sr. Discussed by Dr. W. Bush Anderson, Nashville; Dr. Charles S. Lowe, Lebanon.

"Management of Malignancies of the Colon and Rectum," by Dr. Carl R. Crutchfield, Nashville. Discussed by Dr. Barney

Brooks, Nashville; Dr. John Hart, Columbia.

Luncheon.

Presidential address by Dr. C. D. Walton, Mt. Pleasant.

"Allergy in Relation to Flying," by Dr. Frederick R. Brown, captain, Medical Corps, United States Army, Station Hospital, Army Air Corps, Nashville.

"Recent Advances in Immunization Procedures in Children," by Dr. Amos Christie, professor of pediatrics, School of Medicine, Vanderbilt University, Nashville.

"Hyperthyroidism in Children," by Dr. Nat S. Shofner, Nashville. Discussed by Dr. L. W. Edwards, Nashville; Dr. J. R. Gott, Murfreesboro.

This is the ninety-eighth meeting of the association. The meeting next fall will be the one hundredth meeting and plans are being made to hold the centennial celebration in Nashville.

ABSTRACTS OF CURRENT LITERATURE

INTERNAL MEDICINE

By R. B. Wood, M.D.
By D. R. Thomas, M.D.
Medical Arts Building, Knoxville

The Prognosis of Untreated Patent Ductus Arteriosus and the Results of Surgical Intervention. M. J. Shapiro, M.D., and Ancel Keys, M.D. American Journal of Medical Science, August, 1943.

This article, prompted by the authors' feeling of the "apparent innocuousness of patent ductus arteriosus, gives the conclusions drawn from a study of their own records and the surgical end results of twenty-five operators in 140 operations."

Eighty per cent of patients eventually succumb to their cardiac lesion. Patients alive at age seventeen averaged thirty-five at the time of their death. Forty per cent of the deaths are due to subacute bacterial endocarditis and most of the remaining to congestive failure.

Records of 140 operated cases were studied, thirty-three of these having acute endocarditis at the time of operation. Of the 107 uninfected cases eighty-one were successfully done—*i. e.*, the murmur and thrill disappeared and the pulse pressure decreased. Fourteen cases showed a persistence of the machinery murmur a few months later. Recanalization may have occurred as a result of failure of the ligature. Death from rupture of the duct occurred in six cases, while the mortality rate in the 107 cases was 8.5 per cent.

Of thirty-three patients operated and suffering with endocarditis, twenty were successful—*i. e.*, the blood stream became sterile. Five died on the table as a result of hemorrhage.

The authors conclude: Diagnosis can be made with great certainty and operative mortality should be under ten per cent. The majority of patients with patency of the ductus arteriosus should be sent to surgery for ligation after careful clinical study.

The presence of acute endocarditis is no contraindication to surgery—in fact, the expected mortality is reduced from about ninety-five per cent to fifty per cent.

Studies on Sulfamerazine in Man: III, The Treatment of Meningococcic Meningitis. William I. Gefter, M.D.; S. Brandt Rose, M.D.; Albert H. Domm, M.D.; Harrison F. Flippin, M.D. American Journal of Medical Science, August, 1943.

This drug was employed in forty-five cases of meningitis with three deaths—a rate of 6.7 per cent. Seventy per cent of cases were mentally clear in forty-eight hours and temperature was normal in 5.2 days. Toxic symptoms occurred only after the fifth day and were noted in eleven patients.

Studies on Sulfamerazine in Man: IV, The Treatment of Pneumococcic Pneumonia. Harrison F. Flippin, M.D.; William I. Gefter, M. D.; Albert H. Domm, M.D.; Jefferson H. Clark, M.D. American Journal of Medical Science, August, 1943.

The drug was given to eighty adult patients. The mortality rate was 7.5 as compared with ten per cent in sulfadiazine treated cases. Temperature dropped more rapidly, but the duration of the administration and the complications were essentially the same as for the two groups. Higher plasma readings were noted in those receiving sulfamerazine.

OBSTETRICS

By Milton Smith Lewis, M.D.
Bennie-Dillon Building, Nashville

An Analysis of 250 Cases of Postmaturity. Lewis S. Rathbun. American Journal of Obstetrics and Gynecology, Vol. 46, No. 2, p. 278.

The subject of postmaturity is one about which very little has been written. The few papers about it have defined postmaturity, for the most part, in terms of the size of the infant. The problem of postmaturity in relation to the expected date of

confinement is also important. The question continually arises as to whether or not the patient who is overdue should have labor induced. On the one hand, the obstetrician is faced with: (1) a fretful patient who demands that she be delivered; (2) the fear of the ever-increasing size of the baby; and (3) the fear, which is prevalent, that the baby may die in utero. On the other hand, there is the feeling that the patient is doing very well and that it is meddlesome to interfere. It was in an attempt to find out just what happened to the postmature patient and her baby that this study was undertaken.

It is admittedly difficult to determine which patient is postmature. For this study a patient was considered postmature who was 295 days or more beyond the first day of her last menstrual period, or, in other words, fifteen days or more beyond her expected date of confinement. Any patient was excluded who was not sure of her last period or whose uterus at the time of her first clinic visit (usually at four to six months) was not consistent in size with her menstrual dates. In this manner it was hoped to eliminate as many who were not truly postmature as possible.

A series of 250 carefully-selected, consecutive cases of mothers who delivered at least fifteen days beyond their calculated date of confinement was studied, together with an additional series of 186 consecutive stillbirths. Postmaturity occurred once in 13.2 deliveries. Postmature infants were significantly heavier than term babies at birth. However, they seem to lose the tendency to gain after they are twenty days postmature. Coincident with the increase in weight is an increase in the length of labor; an increase in the operative rate, especially in the more serious operations; and a marked increase in morbidity.

The stillbirth rate was definitely increased. This was an increase in the deaths with apparent cause rather than in deaths where there was no cause except postmaturity. The stillbirths were longer postmature on the average than the general series, averaging 24.4 days beyond term as against 19.6 days for the 250 patients.

The babies who were born alive showed no increase in neonatal deaths nor any difficulty in the post-partum period.

The question as to what to do about postmaturity has not been answered. The increase of difficulty found in postmature patients is not of sufficient magnitude to warrant drastic measures to keep patients from becoming postmature.

The answer to the problem probably lies in the realization that it exists. Each case should be watched individually. If the cervix is favorable, induction of labor is indicated. If it is not, then the size of the fetus must be carefully evaluated against the size of the mother's pelvis, and a close watch must be kept on the increasing size of the fetus. No more fear need be entertained that the fetus will be lost in utero without cause than exists at term. However, failure to appreciate the fact that labor may be more difficult and to prepare to meet these difficulties may cost the baby its life or even the mother hers.

The Ergot Alkaloids: A Comparison of Ergonovine with the Total Alkaloids in Their Effects on the Puerperal Uterus. William Bickers. American Journal of Obstetrics and Gynecology, Vol. 46, No. 2, 238.

Two groups of ergot alkaloids are known to exist: the active substances including ergonovine, ergotoxine, ergotamine; and the inactive isomers including ergometrinine, ergotonine, and others. The active alkaloids may be further divided into the (1) water soluble ergonovine which has a prompt but relatively fleeting oxytocic effect upon the uterus, and (2) water insoluble ergotamine-ergotoxine group with a slower but more prolonged effect. Until the last seven years it was thought that the therapeutic potency of ergot resided exclusively in the water insoluble ergotamine-ergotoxine alkaloids. However, it should be noted that some years previously certain clinical observers had commented upon the fact that occasionally one did note some oxytocic effect in the water solutions of ergot, but these observations were never reported or followed up. In 1929, Thompson, then at the University of Maryland, recognized the instability of the fluid extract of ergot and subsequently advised the use of a dry alkaloid salt, ergotamine tartrate.

Without doubt, this new water soluble alkaloid, now officially termed ergonovine in this country, is the most active and the most consistently potent of the ergot alkaloids. In contrast to the salts of other alkaloids, such as ergotamine tartrate, it is effective when administered orally. Its prompt and consistent oxytocic action is very fleeting, however, while the slower and less dramatic effect of the ergotamine-ergotoxine group is prolonged and well sustained. The question arises as to whether in clinical practice ergonovine should completely replace the other alkaloids of ergot or whether a combination of the short acting ergonovine with the longer acting total alkaloids should prove most desirable. Moir believes that ergonovine "has supplanted the alkaloids previously in use," while Thompson says "there is no single constituent of ergot that is representative of the full clinical oxytocic activity of ergot." Guggisberg agrees in that he believes that the best clinical results will be obtained with a combination of ergonovine with the ergotamine-ergotoxine alkaloids.

Ergonovine, the water soluble alkaloid of ergot, has a prompt but fleeting oxytocic effect upon the puerperal uterus. Given intravenously, there is a tonic response in thirty to ninety seconds which persists on the average of fourteen minutes. Following the tonic response, there is no consistent alteration in the pattern of uterine contractions from that seen before the ergonovine was given. Clinically, the intravenous administration of ergonovine (.2 milligrams) just after delivery of the fetal head is followed by expulsion of the placenta

in 3.1 minutes (seventy-one cases) with a minimal blood loss. Uterine atonia follows in twelve per cent of the patients, requiring a second injection of the oxytocic within two hours of delivery.

Total alkaloids of ergot, a combination of .17 milligrams of ergonovine with 1.12 milligrams of total alkaloids calculated as ergotoxine, .78 milligrams of water insoluble alkaloids calculated as ergotoxine, has a prompt and also a sustained oxytocic effect upon the puerperal uterus. Given intravenously, there is a tonic response in thirty to ninety seconds which persists for the average of twenty minutes. In these experiments fifty per cent of the uteri gave a more sustained response to the total alkaloids than to ergonovine alone. In some cases the effect is almost twice that of ergonovine alone. In one case did the oxytocic response of a uterus to ergonovine alone exceed that of the total alkaloids. After the tonic response has disappeared, there is a consistent increase in the rate and amplitude of the uterine contractions which persists for about two hours.

Clinically, the intravenous injection of the total alkaloids immediately after delivery of the fetal head is followed by delivery of the placenta in 2.9 minutes (fifty-four cases) with minimal blood loss. Uterine tonus was maintained in all cases and none required a second dose of the oxytocic within two hours.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Ocular Injuries in Chemical Warfare. E. B. Gresser. American Journal of Ophthalmology, October, 1943.

As far as eye lesions are concerned, the different gases act uniformly. The severity of action depends only upon the concentration and solubility of the gas. Analysis of 1,500 cases treated in the last war revealed that seventy-five to eighty per cent were mild lesions with no corneal involvement. The subjective complaints were: sense of burning, grittiness or sand in the eye, photophobia, and spasm of the eyelids. Ten to fifteen per cent showed moderate burns with chemosis of the conjunctiva. The conjunctiva presented in parts a pearly-white appearance, under which the vessels were dilated. Occasional punctiform hemorrhages were seen, and varicosities and new-formed blood vessels remained after healing had taken place. The cornea presented minute, discrete, grayish spots not stained with fluorescein, but consisting of edematous epithelial cells, giving the cornea a roughened (orange-skin) appearance. Five per cent of the cases were severe burns with surface loss and complications. They started out with punctate lesions, which rapidly became confluent and spread to the lower half of the cornea, or as a band across the area corresponding to the palpebral fissure. Pericorneal injection and mild iritis may accompany the lesion. Deeper ulcerations may extend over the whole cornea and may cause ectasia and perforation.

Treatment consists of continuous and copious lavage with normal saline, with weak acid, or with a two per cent sodium bicarbonate solution. Anesthesia, bandage, oil, or ointment is not to be used. Cold compresses and watery solutions of drugs for secondary infections are recommended.

ORTHOPEDICS

By J. J. Ashby, M.D.
Doctors Building, Nashville

Synovial Cysts of the Popliteal Space: Clinical Significance and Treatment. L. E. Haggart, M.D., Boston, Massachusetts. Annals of Surgery, Vol. 118, No. 3, September, 1943.

The purpose of this paper is: (1) to record further clinical experience; (2) to emphasize that these cysts often cause symptoms which suggest internal derangement of the knee joint; and (3) to point out that excision of the cyst relieves symptoms and results in excellent function of the knee joint.

Synovial cysts of the popliteal space are due to posterior herniation of the knee joint capsule or to hyperplasia—"fluid distention"—or one of the adjacent bursae, most frequently the semimembranous bursa. Herniation of the joint capsule has been the most frequent cause in the author's experience. Wilson, Eyrl-Brook, and Francis found more frequently cysts from or a part of the semimembranous bursa.

Most patients with true posterior herniation of the knee joint capsule give definite history of trauma, usually sudden, forceful hyperextension of the knee joint. While seventy-five per cent of the patients with hyperplastic bursae also gave history of trauma, in no single instance was the type of injury a forceful hyperextension of the knee.

Patients with synovial cysts of the popliteal space most frequently complain of aching in the knee, often associated with recurrent swelling of the knee joint. All those with relatively large cysts had noted intermittent swelling of the lower leg and ankle after a long period of standing. The general character of the symptoms may be indicative of an internal derangement of the knee.

Examination of these cysts presents a cystic swelling, the major part of which is distal to the transverse flexion crease of the popliteal space. With the knee flexed, a ball-like cystic mass in the popliteal fossa can be demonstrated.

The author describes the operation technic which is carried out through a midline incision over the popliteal space. The cysts may be extensive, occasionally extending downward to below the mid-calf region, and this incision makes dissection easier. If a communication with the knee joint is found, every effort should be made to close the opening. Sometimes fibers of the adjacent tendon or fascia lata

are employed to close the defect. Care in closing this opening, the author believes, accounts for the fact that he has had no definite recurrence of the cyst. A plaster cast is applied with the knee in full extension and left ten days.

He describes the postoperative exercises to the muscles. The average period of hospitalization is eighteen days.

The conclusions are drawn from operations on thirty-five patients who had thirty-five cysts. Twenty-two of these were herniations of the joint capsule. All patients have the same range of motion as before operation, and have returned to their previous occupations. Swelling of the knee or lower leg region is absent.

ROENTGENOLOGY

By J. Marsh Frere, M.D.
Newell and Newell Sanitarium, Chattanooga

Radiation Hazards During Roentgenoscopy. Thomas N. White, Ph.D.; Dean B. Cowie, B.S.; and Alfred A. DeLorimer, M.D. The American Journal of Roentgenology and Radium Therapy, Vol. 49, No. 5, p. 639, May, 1943.

The authors have brought a timely subject up to date and to our attention. Especially should this paper be read by the nonradiologists that are fooling with small roentgen machines without knowing or realizing just how much radiation they are getting.

Their experiments and studies are well summarized in the following summary and conclusions:

There is an escape of considerable roentgen radiation from conventional "ray-proof" roentgen tubes. The term "ray-proof" is misleading. Auxiliary protection, such as a metal side panel or lead protective apron, is often needed beyond the sphere of the roentgen tube housing. This supplementary protection is most needed when operating at relatively high potentials (*e. g.*, above eighty kilovolts peak) and short distances (*e. g.*, twelve inches from tube to legs of operator). It is especially important as far as the cathode end of the tube is concerned.

Large amounts of secondary radiation emanate from the irradiated side of lead shutters. Unless cut off by a cone extending from the tube housing to the shutters or by some equivalent shield, this radiation is likely to overexpose the shins and feet of the roentgenoscopist.

With no patient present the operator may still receive appreciable amounts of secondary radiation from the roentgenoscopic screen and from conventional table tops. The radiation from a very thin light table top, such as the United States army litter, is very small.

The patient is usually responsible for by far the greatest amount of secondary radiation. The downward and outward components of this radiation are of the greatest intensity. In spite of their much greater distance from the patient, the unprotected legs of a roentgenoscopist could receive from this source exposure almost as great as would his unprotected hands if exposed to the exit beam between patient and the roentgenoscopic screen.

Metal side panels, such as are found on substantial totally enclosed tables of the "heavy-duty" type, are very effective in cutting off this backscatter from the patient and table top. These panels are also of value as shields against the other sources of stray radiation mentioned in the paragraphs above.

Tables which are not totally enclosed—"light duty" and field types—can provide nearly the same protection if equipped with a well-designed auxiliary shield. The combination of such a shield on the table with a lead rubber apron on the roentgenoscopist is more protective than the "heavy duty" type of table alone.

The patient gives off secondary radiation in amount almost directly proportional to the dimensions (scope) of the primary beam. Thus, for example, with twenty by twenty centimeters under examination on the screen the secondary intensity is at most points about four times as great as with only ten by ten centimeters illuminated. This observation emphasizes again the importance of using the smallest field dimensions possible—a procedure beneficial in reducing the exposure of the patient as well as of the roentgenoscopist.

The amount of radiation scattered laterally by the patient is about the same as eighty-five kilovolts (peak), three milliamperes as at seventy kilovolts (peak), five milliamperes. The difference in penetrating power of the radiations so scattered appears too small to be of practical significance. Thus, if equally good roentgenoscopic results are obtainable at eighty-five kilovolts (peak), two milliamperes as at seventy kilovolts (peak), five milliamperes, the higher potential is preferable from the point of view of protection of the roentgenoscopist.

A considerable absorption of secondary radiation may occur in the tissues of the patient. When the primary beam is allowed to permeate those tissues nearest to the roentgenoscopist without there being any intervening portion between the limits of the beam and the lateral wall, the radiant intensity is about twice that which obtains when even so little as three centimeters of tissue intervenes to filter the rays. This fact should serve as a warning against prolonged viewing of the lateralmost tissues of a patient unless there is provided for the roentgenoscopist adequate protection, such as a lead rubber apron or a lead protective shield hanging from the screen.

The forward and lateral components of the secondary beam are of the more penetrating quality of ray. Most commonly used types of equipment permit considerable exposure of the arms and shoulders of the roentgenoscopist from these rays. These facts prompt the recommendation that protective gloves of long dimensions be worn.

These studies have indicated that if the several

sources of stray radiation are fully appreciated, satisfactory protection can be incorporated even into light and easily maneuverable equipment. If a lead protective apron and gloves are worn by the operator to supplement well-designed, built-in protection, he can realize security against roentgen radiation exposure, except for very limited portions of his body such as his arms and shoulders, perhaps. Except for these parts, the exposures can easily be kept well below conservative estimates of the tolerance dose; well below .04 r per hour, with the consideration of continuous roentgenoscopic activity or less than .1 r for a strenuous ten-hour day of intermittent roentgenoscopy. It should be borne in mind and emphasized that with *any* of the present-day equipment (well-designed "heavy duty," "light duty," or Army field units), a considerable exposure is incurred by parts of the body such as the shoulders—a quantity of the order of ten times the accepted tolerance dose.

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

Genitourinary Tuberculosis in the Army General Hospital. Roy Lee Smith, Lieutenant Colonel, Medical Corps, and Jesse F. Harrold, Captain, Medical Corps (by invitation). The Journal of Urology, September, 1943.

More than six hundred of the seventeen hundred patients in the Fitzsimmons General Hospital are tuberculous patients. There are seventy beds on the urological service, about one-half of which are renal or genital tuberculosis. Everything needed for the treatment of these patients is available, including medical, surgical, and laboratory service. Regardless of all facilities genitourinary tuberculosis still offers great problems, the chief of which is whether the management of the case shall be surgical or medical.

Prolonged rest in bed, hygienic and climatic treatment, including exposure to sunlight, is just as important in genitourinary tuberculosis as in pulmonary tuberculosis and should not be neglected in these cases, whether surgical or nonsurgical. These cases without exception show marked improvement under sun baths.

A unilateral renal tuberculosis calls for nephrectomy. In tubercular epididymitis, surgery is indicated. Surgical evacuation of the prostate and seminal vesicles is beneficial. Dilatation of strictures is indicated. This is about the limit of surgical procedure in genitourinary tuberculosis. It should not be forgotten that operative procedure may reactivate dormant lesions, which most of these cases undoubtedly have.

In the Fitzsimmons General Hospital new patients are confined to the bed and given heliotherapy until clinical observations and laboratory studies are completed. In the cases with proved unilateral ulcerative destructive lesions of the kidney, in good surgical risks, surgery precedes heliotherapy. All surgical cases are followed with rest and heliotherapy. Rapid healing of tubercular wounds by sunlight is the rule.

Heliotherapy is supervised by nurses specially trained in this work. The treatment is begun by exposing only a small area of the limbs for five minutes the first day. Increasing the area of the exposure and time each day, after about three weeks the whole body can be exposed for two hours.

All genitourinary lesions are subjected to sunlight except when contraindications are present, such as active lung lesions, acute nephritis, and cardiac conditions.

The incidence of all types of tuberculosis is decreasing. However, an increase in the Army can be expected, but with early diagnosis and modern methods of treatment the results should be encouraging.

BOOK REVIEW

New and Nonofficial Remedies, 1943, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1943. Cloth. Price, postpaid, $1.50. Pp. 772. Chicago: American Medical Association, 1943.

The current volume of New and Nonofficial Remedies continues, with minor improvements, the convenient and informative system of classification adopted for the 1942 volume. The terminology of the official drugs has been revised to conform to the U. S. P. XII and the N. F. VII. One notes that the valuable bibliographic index now appears on white instead of "India Tint" paper, a wartime necessity no doubt. This index appears before the general index which is now more properly placed at the end of the book. To one accustomed to the old format of New and Nonofficial Remedies the new arrangement appears at first somewhat awkward, but with a little use the wisdom and convenience of the changes becomes more and more apparent.

Textual changes and revisions do not appear to be as numerous as in some previous editions. The chapter, Digitalis and Digitalislike Principles and Preparations, has been extensively and somewhat radically revised to keep pace with the changing attitude toward this drug. It is understood that in this revision the Council had the aid of the foremost digitalis authorities, pharmacologists and clinicians alike. Other revisions have been made obviously to keep the book up to date with medical knowledge. To cite a specific revision indicating the increasing skepticism of the Council concerning a drug, it is interesting to contrast the following sentence in the 1942 general article on Chaulmoogra Derivatives, "The therapeutic properties of chaul-

moogra oil appear to be due to these optically active unsaturated fatty acids of the chaulmoogric series," which in the 1943 edition reads "Any therapeutic properties chaulmoogra oil may possess would appear to be due to these optically active unsaturated fatty acids of the chaulmoogric series."

No such spectacular new additions as the appearance in a previous volume of the sulfonamides is to be noted. Among the more noteworthy of the new additions are Nikethamide, the central nervous system stimulant which was first introduced as Coramine; Diethylstilbestrol, the synthetic estrogen; Trichinella Extract for the diagnosis of trichinosis; and Zephiran Chloride, a mixture of alkyl dimethyl benzyl ammonium chlorides, an interesting new anti-infective agent.

No one can examine the successive volumes of New and Nonofficial Remedies without increasing his profound respect for the faithful and unselfish work of the Council on Pharmacy and Chemistry in the cause of rational therapeutics. Each volume represents a progressive milestone on the road of medical science.

Send It to

LILY WHITE LAUNDRY

6-3118

There's *Only* ONE



For 16 years this simplified, single-volume office record book has saved precious time for busy doctors. It was designed by a practicing physician—has been perfected by usage—now provides an ideal bookkeeping system for pay-as-you-go tax reporting. Examine a copy for yourself, or write for fully explanatory literature. $6.00.

DAILY LOG

COLWELL PUBLISHING CO. 231 University Ave. Champaign, Ill.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

ANTHONY'S MILK

• Grade "A" Pasteurized • Homogenized • Soft Curd • Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.
President-Elect—Dr. Kyle C. Copenhaver, Medical Arts Building, Knoxville.
Vice-President for West Tennessee—Dr. J. W. Oursler, Humboldt.
Vice-President for Middle Tennessee—Dr. Burnett W. Wright, Nashville.
Vice-President for East Tennessee—Dr. J. C. Brooks, Chattanooga.
Secretary-Editor—Dr. H. H. Shoulders.
Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1946).
Dr. E. R. Zemp, Walnut Street, Knoxville.
Dr. B. L. Jacobs, Provident Building, Chattanooga (1946).
Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).
Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Jere L. Crook, Jackson.
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.
Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1946).
Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennessee (1946).

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	J. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S. Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	H. H. Edmondson, Clarksville	Jack Ross, Clarksville	B. H. Webster, Clarksville
Obion	M. T. Tipton, Union City		M. A. Blanton, Jr., Union City
Overton	W M. Bre-ding, Livingston		A. B. Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood		W. W. Hill, Harriman
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			W. M. Dedman, Gallatin
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. W. L. Williamson, Memphis
Dr. L. W. Edwards, Nashville
Dr. E. G. Wood, Knoxville
Dr. A. M. Patterson, Chattanooga
Dr. J. O. Manier, Nashville

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville (1945)
Dr. A. F. Cooper, Memphis (1944)
Dr. Cecil E. Newell, Chattanooga (1946)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. E. A. Gilbert, Chattanooga (1944)
Dr. R. R. Crowe, Nashville (1946)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Lee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1946)
Dr. John B. Steele, Chattanooga (1946)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1946)
Dr. T. R. Ray, Shelbyville (1946)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. O. N. Bryan, *ex officio*, Nashville

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1948)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1946)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1946)
Dr. John M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. C. H. Sanford, Memphis (1944)
Dr. D. W. Smith, Nashville (1946)

COMMITTEE ON MEMOIRS

Dr. James O. Walker, Chairman, Franklin (1945)
Dr. D. W. Hailey, Nashville (1944)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1946)
Dr. J. L. Hankins, Johnson City (1946)

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. John S. Cayce, Nashville (1944)
Dr. J. B. Fitts, Chattanooga (1944)
Dr. M. L. Hefley, Knoxville (1946)
Dr. C. W. Friberg, Johnson City (1946)

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. W. R. Cross, Knoxville (1946)

COMMITTEE ON CANCER

Dr. C. H. Heacock, Chairman, Memphis (1944)
Dr. Ralph H. Monger, Knoxville (1946)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. Stanton S. Marchbanks, Chattanooga (1944)
Dr. Howard King, Nashville (1946)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. C. R. Thomas, Chattanooga (1944)
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1946)
Dr. George Inge, Knoxville (1946)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. Carrington Harrison, Nashville (1946)

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. E. T. Newell, Chattanooga (1945)
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Robert F. Patterson, Knoxville (1946)

COMMITTEE ON PREPAYMENT PLANS FOR MEDICAL AND HOSPITAL SERVICES

Dr. J. O. Manier, Chairman, Nashville
Dr. R. R. Brown, Nashville
Dr. J. C. Brooks, Chattanooga
Dr. M. S. Roberts, Knoxville
Dr. A. R. Porter, Jr., Memphis
Dr. W. D. Stinson, Memphis

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatic Society—
President—Dr. Frazier Binns, Nashville*
Vice-President—Dr. O. L. Von Canon, Chattanooga*
Secretary—Dr. Gilbert Eblen, Knoxville*

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland*
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis*
Vice-President—Dr. Franklin B. Bogart, Chattanooga*
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

*In service.

The JOURNAL of the TENNESSEE STATE MEDICAL ASSOCIATION

FEB 7 1944 MEDICAL LIBRARY

Owned, Published, and Controlled by the Tennessee State Medical Association
ISSUED MONTHLY, Under Direction of the Trustees
H. H. SHOULDERS, M.D., Secretary and Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE
Copyright, 1943, by the Tennessee State Medical Association

887 Friday

Volume XXXVI
Number 12

DECEMBER, 1943

Single Copy, 20 Cents
Per Year, $2.00

CONTENTS

FIND SULFADIAZINE CONTROLLED AN EPIDEMIC OF SCARLET FEVER 453
THE SCIENTIFIC USE OF PHYSICAL THERAPY, Mildred F. Heap, B.S., Vanderbilt University Hospital, Nashville . 455
THE A. B. C's of "SOCIAL SECURITY"—PRESENT AND PROPOSED 457
MENINGOCOCCEMIA WITH BILATERAL ADRENAL HEMORRHAGE (Waterhouse-Friderichsen Syndrome): Report of Two Cases, Lieutenant Colonel M. Kasich, Medical Corps, Army of the United States, and Major S. Disick, Medical Corps, Army of the United States 464
TENNESSEE DOCTORS AND THE MILITARY SERVICE 468
EDITORIAL 474
DEATHS 476
NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE 476
NEWS NOTES AND COMMENTS 476
MEDICAL SOCIETIES 477
OTHER MEDICAL SOCIETIES 478
ABSTRACTS OF CURRENT LITERATURE 478
LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION 483
STANDING COMMITTEES 484
1943 MEMBERS OF TENNESSEE STATE MEDICAL ASSOCIATION 485
INDEX TO VOLUME XXXVI 489
INDEX TO ADVERTISERS XXII

This Association Does Not Officially Indorse Opinions Presented in Different Papers Published Herein
Entered as Second-Class Matter, May 29, 1908, at the Post Office at Nashville, Tenn., Under the Act of March 3, 1879

BACKGROUND
Three Decades of Clinical Experience

THE use of cow's milk, water, and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

DEXTRI-MALTOSE No. 1 (with 2% sodium chloride), for normal babies.
DEXTRI-MALTOSE No. 2 (plain, salt free), permits salt modifications by the physician.
DEXTRI-MALTOSE No. 3 (with 3% potassium bicarbonate), for constipated babies.

These products are hypo-allergenic

DEXTRI-MALTOSE

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons. Mead Johnson & Company, Evansville, Ind., U. S. A.

THE 110TH ANNUAL MEETING, APRIL 11-13, 1944
NASHVILLE — NOEL HOTEL



HOW CAN A DOCTOR HAVE A

MERRY Christmas?

You are a healer, a saver of life . . .

Yet, this Christmas you see a world intent on maiming, on killing.

You wish you were out where the wounded and dying are, doing everything in your power for them . . .

But, circumstance holds you and commands, "Stay, do your work here—where the need for it is greater than ever before!"

Because today twice as many people are dependent upon your skill, no hour of day or night is completely and certainly your own...

Not even at Christmas.

So, to wish you a *merry* Christmas at this time would be to wish you the impossible.

However, the House of Wyeth—dedicated, too, to the relief of suffering—does wish that on Christmas Day you find a moment to yourself . . .

To hope, to believe, that this time the maiming and killing of war are being endured for the last time . . .

To be thankful for the wonderful healers and healing techniques that are coming out of the war to serve the peace . . .

To take pride in the glorious achievements of your professional brothers in uniform . . .

And to feel that your own service, wearying and unheroic though it be, is appreciated—and in the finest traditions of the selflessness of the medical profession.

WYETH
INCORPORATED

The JOURNAL of the
TENNESSEE
STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF TENNESSEE
ISSUED MONTHLY, Under Direction of the Trustees
Copyright, 1943, by the Tennessee State Medical Association
H. H. SHOULDERS, M.D., Secretary and Editor W. M HARDY, M.D., Assistant Secretary-Editor
OFFICE OF PUBLICATION, 508 DOCTORS BUILDING, NASHVILLE, TENNESSEE

Volume XXXVI DECEMBER, 1943 No. 12

FIND SULFADIAZINE CONTROLLED AN EPIDEMIC OF SCARLET FEVER*

Outbreak of the Disease at a Naval Station Brought Under Control by Prophylactic Doses of One Gram Daily

Sulfadiazine in prophylactic doses of one gram daily effectively controlled an epidemic of scarlet fever at a United States naval station and caused a pronounced reduction in the number of daily sick calls due to other respiratory complaints, Lieutenant Robert F. Watson (M. C.), U. S. N. R.; Lieutenant Commander Francis F. Schwentker (M. C.), U. S. N. R.; Commander J. E. Fetherston (M. C.), U. S. N., retired; and Sidney Rothbard, M.D., New York, report in *The Journal of the American Medical Association* for July 10.

"Infectious diseases often appear in epidemic proportions under wartime conditions when it becomes necessary to gather large bodies of troops into crowded quarters," the four physicians explain. "Such conditions are particularly favorable to the spread of the air-borne infectious diseases of the respiratory tract. While experimental work with aerosols (solutions which can be finely atomized for the purpose of sterilizing the air of a room) apparently offers promising prospects for controlling droplet infections, effective technics have not yet been perfected for employing these substances on a large scale. Several recent reports have appeared, on the other hand, showing that small doses of sulfanilamide, given over prolonged periods, will prevent rheumatic subjects from having hemolytic streptococcus infections of the respiratory tract and thereby save them from recurrences of rheumatic fever." Scarlet fever is caused by specific strains of hemolytic streptococci.

The authors say that the first case of scarlet fever to appear at the naval station where their study was made was on September 28, 1942. During the following month only a few additional cases were reported, the number being about equally distributed between the radio school and the regular personnel. During the first two weeks in November, however, the incidence of scarlet fever increased sharply in both groups and by November 20 the number of cases in the radio school had reached a level of ten a week, with a slightly higher incidence among the regular personnel. On November 20, as a prophylactic measure, the entire personnel of the radio school was started on .5 gram of sulfadiazine twice a day. The drug was given at 8:00 A.M. and 4:00 P.M. and was continued for a period of thirty-two days through December 22.

"The results were striking," the four physicians declare. "During the first week after sulfadiazine was started the incidence dropped to four cases a week, during the

*Reprinted from *Journal of the American Medical Association*, July 10, 1943.

next three weeks only five new cases of scarlet fever appeared among this group.

"For three weeks after sulfadiazine was begun in the radio school, the incidence of scarlet fever among the (regular) personnel, on the other hand, remained high. For this reason the regular personnel was started, December 11, on prophylactic doses of sulfadiazine, one gram daily, given at 8:00 o'clock each morning, because it was not possible to divide the daily dose as was being done at the radio school. The drug was continued for twelve days through December 22. . . ."

The drop in number of cases was even greater than among the radio school personnel.

"This study," the authors say, "indicates that sulfadiazine in doses of one gram daily can effectively control an outbreak of scarlet fever. The conditions prevailing at the station were such that the entire personnel could be divided into two groups, one of which served as a control for the other during the period of prophylaxis. . . .

"There can be little question that sulfadiazine in small doses was effective in controlling the epidemic in both groups. The radio school personnel was started on treatment first, with a resulting sharp decrease in case rate, while simultaneously the incidence among the regular personnel remained high for the next three weeks. . . . "

See You

at

THE NOEL HOTEL

NASHVILLE

STATE MEETING

April 11-12-13

THE SCIENTIFIC USE OF PHYSICAL THERAPY

MILDRED F. HEAP, B.S., Vanderbilt University Hospital, Nashville

Physical therapy, as approved by the American Medical Association, is defined as "the treatment of disability, injury, and disease by nonmedical means comprising the use of massage, exercise, and the physical, chemical and other properties of heat, light, water, and electricity (except roentgen rays, radium, and electrosurgery)." This form of physical medicine has been too long misunderstood by the majority of physicians and too empirically used by others. At the present time there is in the American Medical Association a Council on Physical Therapy which has the power of accepting or rejecting all modalities used in physical therapy. The American Congress of Physical Therapy is a group of physicians specializing in physical therapy. The Council on Education of the American Medical Association approves schools and courses for physical therapy technicians. The American Physiotherapy Association and the American Registry of Physical Therapy Technicians are groups of such technicians. With such organizations already well established, physical therapy should be much better understood by all physicians and should play a more practical role in the treatment of injury and disease. If the physicians knew the physiological effects of the physical therapy modalities, prescribing such treatments would not be as difficult as it may appear.

Physiological Effects of Massage

The effects of massage vary widely, depending upon the effect desired. A mild stroking massage can be a very effective sedative, whereas a heavier stroking massage has more influence on the capillaries and produces a more enduring dilatation. By assisting the flow of blood and lymph in the direction of the venous flow, waste products are removed and circulation is improved. Adhesions may be lessened by frictional strokes. The skin temperature may be increased from two to three degrees centigrade due not only to mechanical effects, but to direct vasomotor action. Contrary to public opinion, no amount of vigorous massage will reduce adipose tissue.

Physiological Effects of Exercise

Much has been written about the effects of exercise, the most obvious of which are stimulation of body metabolism and increase in muscle strength. Because active exercise increases cardiac rate, graduated exercises must be minutely supervised in cardiac conditions. Physiologists have recently confirmed the report that early mobilization of muscles in infantile paralysis is advantageous to the muscle, particularly in improving circulation and tone of muscle and preventing fibrosis. For the same reasons early mobilization is employed in fractures and neuromuscular conditions. A system of mild, active exercise is of definite value to those confined to bed for a long period of time. Special exercises are of marked value—e. g., to assist exspiration in asthma, to improve vascular circulation in thromboangiitis obliterans, and to increase coordination and control of movements in neuromuscular conditions.

Physiological Effects of Heat

Any change in temperature whether by means of thermotherapy or cryotherapy has a profound effect on circulation and metabolic changes of the tissues. Heat will increase capillary pressure, fluid interchange, and blood flow, thus preventing localized heat from becoming too great. Application of heat will relax muscle spasm and relieve pain.

Physiological Effects of Light

Light therapy as discussed here will include only ultra-violet rays. Specific effects are aiding in the cure of rickets, provided the source of energy is below 315 millimicron, tanning of the skin at approximately 330 millimicron, and lethal effects at approximately 669 millimicron. Applications of ultra-violet are beneficial to patients with tuberculosis of bones and joints. General effects of ultra-violet radiation include improvement of general body metabolism, especially of calcium and phosphorus, increase hemoglobin content, increase number of red and white cells and blood platelets, and im-

provement of muscle tone, elasticity, and color of skin. It has been stated that small doses of ultra-violet radiation stimulate the endocrine system.

Physiological Effects of Hydrotherapy

A very hot bath tends to raise the body temperature and acts as a stimulant, whereas a short hot bath relaxes muscle tension, decreases arterial tension, and gives a general tonic reaction. A continuous warm bath acts as a sedative. The effects of a short application of cold water are constriction of peripheral blood vessels, pallor, and shivering, which is normally followed immediately by a reaction causing dilatation of peripheral blood vessels, hyperemia, relaxation, and production of heat. To produce marked hyperemia and a stronger circulatory reaction, alternate short hot and cold applications are effective.

Physiological Effects of Electrotherapy

There are four types of current used generally today in physical therapy. Galvanic, faradic, and sinusoidal, all of which are low-frequency currents, and diathermy, a high-frequency current. Because of the polarity of the galvanic current, it is capable of introducing medicinal ions into the superficial tissues, called iontophoresis, its effects depending upon the ions used. The negative pole may also be used for destruction of tissue, and is called electrolysis. Galvanic current may cause contraction of muscle fibers when voluntary contraction is not possible, and it is used in testing for reaction of degeneration and in the treatment of some peripheral nerve lesions.

The faradic current causes muscular contractions and is also used in testing for reaction of degeneration, particularly to determine whether or not a muscle has a normal nerve supply. This current is frequently used in the treatment of hysteria.

The sinusoidal current causes muscular contraction and is used by some doctors as the method of choice because it is a less painful and smoother current.

There are two methods of applying diathermy; (1) long-wave or conventional diathermy and (2) short-wave diathermy. Both methods, however, produce approximately the same effects, i. e., one of deep heat, vasodilatation, increased circulation, relief of muscle spasm and pain.

Thus described very briefly, these are the modalities and their effects as used in the field of physical therapy today.

Bibliography

Beard, Gertrude: "The Physiological Effects and Technic of Massage." The Physiotherapy Review, 19: 2, 67-75 (March-April), 1939.

Krusen, Frank: "Physical Medicine." Philadelphia. W. B. Saunders Company, 1941.

Laurens, Henry: "The Physiological Effects of Radiant Energy." Archives of Physical Therapy, XXIII: 3 (March), 1942.

Leaman, William C.: "The Value of Physical Therapy in Management of the Cardiac Patient." The Archives of Physical Therapy, XXIII: 1, 5-14 (January), 1942.

Molander, C. O.: "Physiologic Basis of Heat." The Physiotherapy Review, 21: 4 (July-August), 1941.

Osborn, S. L.: "The Physiology of Heat." The Physiotherapy Review, 19: 2, 59-62 (March-April), 1939.

THE A, B, C's OF "SOCIAL SECURITY"—PRESENT AND PROPOSED*

A One-Hour Course in a Multibillion Dollar Subject Prepared for Busy People Who Want to Know the Fundamental Facts About a Program Which Affects the Destiny of America

FOREWORD

CLARENCE A. JACKSON
Executive Vice-President
Indiana State Chamber of Commerce

In the midst of its colossal war effort, America has been presented with a proposal for a complete overhauling of its social security system and the Congress soon will be asked to act on these proposals. There is a grave possibility that the American people in their preoccupation with the war may overlook the effects of the enactment of such a program on our social and economic systems as we know them now and as they existed in the prewar era. Americans may be lulled into readily accepting something that in less turbulent times would be subjected to careful study and scrutiny before approval was granted.

One fallacy should be erased from everyday thinking. Social security for America did not originate in 1935. That was merely the year in which a national law called the "Social Security Act" was passed by Congress. America always has had a social security system—it always has cared for, by such means as circumstances warranted, the unfortunate people who needed help. A big step was taken in 1935 in the setting up of a national plan, particularly as to insurance against the hazards of unemployment and old age, and public assistance for children, blind and aged people without means of support. But this was an improvement in, rather than the beginning of, a program which has become popularized as "social security."

The question before the American people today is not, "Shall we have a social security system?" It is merely, "What kind and how much and who is going to run it?"

There may be some in this country who are opposed to any national social security system. We do not belong to that group. We believe that there is a need for a national-state cooperative plan. We believe that the present system, which provides for federal, state, and local governmental cooperation in most of its phases, is basically sound and should be continued and improved. We challenge those who say that only through federalizing the entire system can progress be made. We believe that more progress can be made under the present system than under a federalized system.

The scope of the current social security proposals is so wide that their enaction into law might well change our entire philosophy of the responsibility of the individual and family to care for their own. We must remember that America has driven forward to the highest living standards in the world and with less suffering from want, under a system which has rewards for energy, initiative and thrift, and punishment for indolence. When the "reward and punishment" system is softened to a point where support by the government becomes more attractive than self-support to too many individuals, then we shall have traded national progress for national lethargy; individual freedom of action for promises of individual security; a rising standard of living for a declining one; and a virile strain of American people for a jelly-fish strain. We too can become a "manana" country—"tomorrow will do."

We must also be realistic about the problem of financing a Social Security program in the light of conditions which face the country. When the war ends, the country will be shouldered with a national debt probably of somewhere around three hundred billion dollars. For the country to function in the economic system which we know, while meeting its obligations on the national debt and maintaining adequate armed forces and the normal operations of government, will require all the ingenuity and wisdom the nation can assemble.

It should be remembered that in the 1941 fiscal year, the last prewar year for the United States, the cost of our present social security system at all levels of government was $6,200,000,000—an amount which represented twenty-seven per cent of public

*Published by the Indiana State Chamber of Commerce, Board of Trade Building, Indianapolis 4, Indiana, November, 1943.

expenditures for all purposes. (Authority —1941 Social Security Yearbook, page 34.) Total expenditures of the federal government during this same period amounted to $12,774,890,000, and its revenues totaled only $7,607,212,000, leaving a deficit in excess of five billion dollars. Total expenditure of the federal government alone for social security purposes during this same period amounted to $3,171,000,000. This amount consumed 41.7 per cent of the federal government's total revenues for all purposes in 1941 and represented an amount equivalent to 61.4 per cent of the deficit at which the government operated in that year.

Under these conditions the country obviously cannot afford to obligate itself for the tremendous additional expenditures on the expanded social security program suggested by the Wagner-Murray-Dingell bills (S. 1161 and H. R. 2861) or the even broader proposals of the National Resources Planning Board. Until the uncertainties of the fiscal future of the country are removed, all possible resources must be devoted to winning and paying for the war.

We further regard the existing trend toward centralization of authority over domestic affairs in Washington as contrary to the American concept of government and as against the interests of the American people. We recognize that efforts being made to federalize the social security program are but forerunners of efforts to federalize many other functions of state and local government. We are convinced that a stronger, more workable, and more democratic social security system can be had through retention at state and local levels of a major part of the legislative and administrative functions involved in such a program.

To simplify study of these proposals the Indiana State Chamber of Commerce has summarized them—one by one—on the following pages, and compared them with the present programs as they operate in and affect Indiana.

The Administration of Social Security

Present

1. Old age and survivors' insurance administered by federal government.

2. Unemployment compensation administered jointly by federal and state governments.

3. Government employment service under regular peacetime organization administered jointly by federal and state governments.

4. Public assistance programs administered jointly by federal, state, and county governments in Indiana.

5. General relief administered solely by township government in Indiana.

6. Medical programs and institutions administered by state and local governmental units.

Proposed

1. Old age and survivors' insurance—to be administered by federal government.

2. Unemployment compensation—to be administered solely by federal government.

3. Government employment service—to be administered solely by federal government.

4. Public assistance programs—to be administered jointly by federal, state, and county governments in Indiana.

5. General relief—to be administered by federal, state, and local governments.

6. Federal medical, hospitalization, and related benefits—to be entirely federally administered.

Old Age Insurance and Assistance Programs

Present

1. Personal resources — savings, insurance, company pensions, family responsibility.

2. Community funds, fraternal, and church charities.

3. Old age and survivors' insurance under Old Age and Survivors' Insurance Law —financed by two per cent pay roll tax— one per cent paid by employer and one per cent paid by employee. Available to covered employees and their spouses upon reaching age sixty-five. Maximum benefits $85.00 per month.

Old age and survivors' tax collections in Indiana in 1941-1942 fiscal year—$18,001,-761. Sixty-five million account numbers issued since 1937 in the United States. Probably some fifty-five million workers,

plus their families, now insured. Account numbers issued to Indiana residents now in excess of 1,800,000. Old age and survivors' benefits paid in Indiana in 1941-1942 fiscal year—$3,210,000.

4. Old age assistance under the Federal Social Security Act and the Indiana Welfare Act. Grants up to $40.00 per month available to citizens of the state over sixty-five years of age and having no other resources. Granted on basis of "needs test." This type of assistance was received by 64,434 Indiana residents in July, 1943.

Total cost in Indiana for 1941-1942 fiscal year, $15,797,937.

5. Dependent parents insurance benefits under the Old Age and Survivors' Insurance Law—available to dependent parents over sixty-five years of age of individuals in covered employment. Benefits equal to one-half of primary insurance benefits to the deceased child who was supporting the parent.

6. County infirmaries—cost of operation in 1941, $1,175,006.

7. Township poor relief—available to indigent individuals not covered by Social Security Act.

Total cost in Indiana in 1942, $4,294,532.

Proposed

1. Old age and survivors' insurance—coverage extended to many not covered at present; maximum benefits increased from $85.00 to $120.00 per month; age limit for women reduced from sixty-five to sixty. Benefit formulas to be revised to pay higher benefits.

2. Old age assistance under the Indiana Welfare Law—continued under the present plan except that federal grants-in-aid will be determined on basis of state's average per capital income rather than straight matching fund.

3. Dependent parents insurance benefits under the Old Age and Survivors' Insurance Law. Eligible age of dependent mother reduced from sixty-five to sixty. Benefits increased to seventy-five per cent of primary insurance benefit of the supporting child.

4. Relief program—replace present township system by a program administered and financed primarily by federal and state governments. Residence requirements and "needs test" both modified.

FOR THE UNEMPLOYED
(Because No Work Is Available)

Present

1. Individual savings.
2. Credit.
3. Community funds, fraternal, and church charities.
4. Unemployment compensation — maximum $18.00 for eighteen weeks (over one-third of a year) for employees covered by Unemployment Compensation Law. State administered system with merit rating.

Total unemployment compensation tax paid by Indiana employers in 1942-1943 fiscal year $33,004,323.

Total unemployment compensation benefits paid in Indiana in 1942-1943 fiscal year $3,942,131.

Balance in Indiana employment security fund on June 30, 1943, $104,388,844.

5. Government employment offices—assistance in finding other employment. Offices operated under direction of state and federal government prior to United States entry into war.

6. Township poor relief—available when other resources are exhausted or to individuals not covered by the Unemployment Compensation Law and who have no other resources. Total cost in Indiana in 1942 $4,294,532.

Proposed

1. Unemployment compensation — completely federalized system; benefits payable for twenty-six weeks; may be extended to fifty-two weeks at discretion of trustees of fund.

Maximum benefits $30.00 per week based upon wage credits and upon *number of dependents of the worker.* Adding "dependents" to wage credits for computation of benefits changes the philosophy of unemployment compensation from an actuarial basis and injects the "dole" principle.

Elimination of merit rating. This means the same pay roll tax for all employers, without present incentive (of tax reduction) for stabilizing employment. Coverage extended to practically all employees.

To be financed from proposed twelve per cent pay roll tax.

2. Federalized employment service—for placement of individuals in both industry and agriculture.

3. Relief program — replacing present township system by a program administered and financed primarily by federal and state governments. Residence requirements and "needs test" both modified. Emphasis on liberalization of program.

4. Governmental work programs with employees paid a wage comparable to that paid in private industry—also comparable hours and conditions of work—union standards for the dole. WPA in its "heyday," with lower wage scales, spent over $66,000,000 in one year in Indiana.

Industrial Injury or Disease Contracted in Course of Employment

Present

1. Company physicians, nurses, and hospitals.

2. Indiana Workmen's Compensation Law—premium cost to Indiana employers in 1940, $8,290,755. Merit rating principle applies with lower premium cost to employers with good safety records.

Weekly benefit amount ranges from $10.01 to $18.70. Maximum compensation payable for any one injury is $5,500.

3. Indiana Occupational Diseases Law—provides remedies for employees who suffer injuries as a result of occupational disease; also death benefits.

Weekly benefit amount ranges from $10.01 to $18.70. Maximum compensation payable is $5,500.

Proposed

No changes from this type of care included in new proposals. Covered workers incurring permanent disability become eligible for benefits under federal permanent disability benefits program.

Illness and Disability

Present

1. Private health insurance plans and policies.

2. County hospitals.

3. City hospitals and clinics.

4. Veterans hospitals.

5. State hospitals: (a) general; (b) mental disease; (c) tuberculosis.

6. Public health nurses.

7. Maternal care for wives of servicemen.

8. Services for crippled children under public welfare program.

9. Mental hygiene clinics under public welfare program.

10. Medical care under township relief program.

11. Medical care under welfare program for recipients of old age assistance, blind assistance, and aid to dependent children.

12. County tuberculosis hospitals.

13. School nurses.

14. United States Public Health Service.

Proposed

"Federal disability, medical, hospitalization, and related benefits." To be financed by part of the twelve per cent pay roll tax.

1. Temporary and permanent disability benefits to be granted as a matter of right and without means test. Annual cost of temporary sickness and disability program in Indiana would approximate $8,000,000. Cost of permanent disability benefits program unknown.

2. Weekly maternity benefits to be payable to married women workers for a period of not more than twelve consecutive weeks.

3. Extensive universal system of federal medical and hospitalization benefits bordering on socialized medicine would be created. "Needs test" eliminated—available to all.

All present facilities supported by general taxation apparently would be continued to supplement this "super" plan.

The Physically Handicapped

Present

1. Vocational rehabilitation for disabled and physically handicapped persons through training and employment placement.

Total cost in Indiana in 1941-1942 fiscal year was $138,601.

2. Assistance to the blind under the Social Security Act and the Indiana Welfare Act. This type of assistance was received by 2,354 Indiana residents in July, 1943.

Total cost in Indiana in 1941-1942 fiscal year was $602,687.

3. Board of Industrial Aid to the Blind for vocational training of blind persons in Indiana.

Total operating expense in 1941-1942 fiscal year was $30,000.

4. Services to crippled children under Indiana Welfare Act—program included 3,788 Indiana children on June 30, 1943.

Total cost in Indiana in 1941-1942 fiscal year was $528,105.

5. Job finding for handicapped persons by employment service.

6. State School for the Blind.

Total operating expense in 1941-1942 was $66,648.

7. State School for the Deaf.

Total operating expense in 1941-1942 was $214,635.

8. James Whitcomb Riley Hospital for Children—a state institution for handicapped children.

Proposed

1. Federal permanent disability benefits.

2. Program for determination of disability and rehabilitation of disabled beneficiaries.

3. Federal medical and hospitalization insurance.

Existing state and local facilities for treating and rehabilitating the handicapped financed by general taxation apparently would be continued as supplementary to the federal plan.

Dependent and Neglected Children

Present

1. Private, fraternal, and community charities.

2. Assistance to dependent children under Social Security and Indiana Welfare Law—payable to dependent children under sixteen years in custody of relatives. This assistance was received by 21,667 Indiana children in July, 1943.

Total cost in Indiana in 1941-1942 fiscal year was $5,606,605.

3. Child's insurance benefits under the old age and survivors' insurance program—available to children under eighteen years of covered individuals who die or who reach age sixty-five and become eligible for benefits.

4. Placement in boardinghouses, adoptive homes, and wage homes under supervision of the public welfare program.

Total cost in Indiana in 1941-1942 fiscal year was $919,526.

5. Institutional care: (a) state; (b) county; (c) private.

6. Child welfare services for dependent, neglected, and delinquent children.

Total cost in Indiana in 1941-1942 fiscal year was $78,296.

7. Services to sick and crippled children.

Total cost in Indiana in 1941-1942 fiscal year was $528,105.

Proposed

1. Assistance to dependent children under Social Security and Indiana Welfare Law—continue under present plan except that federal grants will be changed from straight matching to *per capital income base.*

2. Child's insurance benefits under the old age and survivors' insurance program—coverage would be extended and benefit formula liberalized.

3. Free school lunches for all public school children.*

4. Federal grants to *any child* whose family resources are insufficient . . . *whatever the reason.**

5. Large increases in the amount of *student aid at all levels.* Aid to take form of grants, loans, and work opportunities. *Available to all students.**

6. Camp facilities to be made available for *all* youth above the lower elementary grades with work programs as part of the plan.*

Institutional care, foster home care and child welfare programs apparently to continue if needed.

How We Pay for Social Security

Present

"Social Security" in Indiana during the 1941-1942 fiscal year cost $116,000,000. Total expenditures by state and local governmental units for *all purposes* (including state and local expenditures for social security) during the same period amounted to $246,142,494. Social security funds are raised in the following manners:

*Not in Wagner-Dingell Bill—National Resources Planning Board recommendation.

1. Old age and survivors' benefits by pay roll tax—one per cent paid by employer and one per cent paid by employee.

Total tax in Indiana in 1941-1942 was $18,001,761.

2. Unemployment compensation by pay roll tax paid by the employer which has a maximum rate of three per cent and a *merit rating clause* by which employers, through stabilized employment, can reduce their tax as low as .135 of one per cent. Merit rating will save Indiana employers $10,000,000 in 1943.

Total unemployment compensation tax collected in Indiana in 1941-1942 fiscal year was $31,033,078.

3. Workmen's compensation — paid through insurance policies carried by employers or self insurance by certain employers.

Total premiums in 1940 was $8,290,755 (not paid from public funds and not included in the "Total Cost" item).

4. Assistance programs, institutional care, and other governmental services paid for by direct taxation levied and collected by the various governmental units. These services cost $65,397,305 in Indiana in the 1941-1942 fiscal year.

Proposed

Estimates of the national cost of "Cradle-to-Grave" range from *ten to twenty billion annually.* Indiana's share of this amount would be $250,000,000 to $500,000,000. This would at least double the present cost.

The National Resources Planning Board offers no method of financing its proposals. Senator Wagner, author of S. 1161, suggests:

1. Every employer shall pay a standard social insurance tax equal to six per cent of his pay roll. (*Elimination of merit rating.*) A conservative estimate of this cost to Indiana employers would be $60,000,000. Present cost to Indiana employers is approximately $43,000,000 per year.

2. Every employee shall pay a social insurance tax equal to six per cent of his wages. A conservative estimate of this cost to Indiana workers would be $60,000,000. Present cost to Indiana workers is approximately $10,000,000 per year.

3. Every self-employed individual (not covered under present old age insurance and unemployment compensation programs) shall pay a social insurance tax equal to seven per cent of the market value of his services up to $3,000 annually. Estimating average taxable income of self-employed persons in Indiana at $2,500, these persons would pay approximately $46,000,000 in social security taxes. At present they pay no social security tax.

4. Governmental units (not covered by present plans) shall pay a three and one-half per cent tax on their pay rolls. This amount would have to be raised by adding it to budgets met through direct taxation. (On basis of 1941-1942 expenditures for salaries and wages by the State of Indiana this would add $760,000 to the state budget annually. This would amount to an additional two cents on the state property tax rate. County, township, and municipal governments would add much more. None of these units now pay social security taxes.)

5. Governmental employees (not covered at present) shall pay a tax equal to three and one-half per cent of their wages up to $3,000 annually. They pay no social security tax now.

6. Assistance programs, institutional care, and other governmental services would continue to be supported by *direct taxation.* Sponsors of the program admit that in the future years a twelve per cent pay roll tax would not meet all obligations and that governmental contributions approximating one-third of the total cost from the general taxpayer will be necessary. Thus we must look forward to higher deductions from our personal incomes and to higher general taxes for social security.

It's a "Dollars-and-Cents" Problem, Too

Perils involved in the *philosophy* of a wholly federalized, all-inclusive "security" program are discussed in the foreword to this booklet. But benefits are proposed to be paid in money. That means collection of taxes in money.

Let's see, then, what the proposed program means—not in vague billions intended to be acquired in some way by the federal

treasury, but in hard-earned Hoosier dollars!

1. Cost of social security program in Indiana in 1941-1942 was $116,000,000.†

2. Total expenditures by Indiana state and local government units *for all purposes* (including state and local expenditures for social security) during this same period was $246,000,000.

3. Programs proposed in the Wagner bill would cost *at least* $250,000,000 per year in Indiana—*double present costs* and would be *more* than present expenditures by state and local governmental units *for all purposes.*

(To raise this amount through a gross income tax, on the basis of 1942-1943 taxable income, it would be necessary to have rates *eight times as high* as those now in effect.)

†Includes public assistance, work, relief, unemployment compensation, institutional care, etc.

4. The Wagner bill would *increase* total pay roll tax collections for social security purposes in Indiana from $53,000,000 paid in 1942-1943 to $175,000,000, or by approximately *$122,000,000—a 230 per cent increase.*

Summary of Pay Roll Tax Increases

	Social Security Pay Roll Taxes 1942-1943	*Social Security Pay Roll Taxes Proposed*
Paid by Private Employers	$43,000,000	$ 60,000,000
Paid by Their Employees	10,000,000	60,000,000
Paid by State Government	No Tax	760,000‡
Paid by Employees of State Government	No Tax	760,000
Paid by Local Governmental Units	No Tax	3,750,000‡
Paid by Employees of Local Government	No Tax	3,750,000
Paid by the Self-Employed	No Tax	46,000,000
Totals	$53,000,000	$175,020,000

‡Funds to pay state and local governmental units' shares would have to be raised by general taxation, thus increasing property taxes.

110th STATE MEETING

will

be

held

at

NOEL HOTEL, NASHVILLE, APRIL 11-12-13

MENINGOCOCCEMIA WITH BILATERAL ADRENAL HEMORRHAGE (Waterhouse-Friderichsen Syndrome): REPORT OF TWO CASES*

LIEUTENANT COLONEL M. KASICH, Medical Corps, Army of the United States, and
MAJOR S. DISICK, Medical Corps, Army of the United States

Meningococcemia with hemorrhage into the adrenals (the Waterhouse-Friderichsen syndrome) is usually encountered in children, and of the 102 cases in the literature, including our own, only twelve have been in adults. Listlessness, malaise, and chills precede the condition, but the onset is usually abrupt with a severe headache and pyrexia. Abdominal pain, vomiting, and diarrhea are frequent. The entire body, except the palms, soles, and scalp, may be covered with a purplish, macular rash, which varies in size from one millimeter to one centimeter in diameter. The exanthem may develop rapidly, and in one of Thompson's[1] patients the body was completely covered in an hour. The rash is really a hemorrhagic macular eruption. Petechiae appear in the skin, subconjunctival and baccal mucosae. Confluence of the rash produces large ecchymotic blotches. Hemorrhages into the serous cavities have been described.[2] The prostration is intense, and the blood pressure may fall to imperceptible levels. A livid cyanosis, most marked in the extremities, combined with the peripheral vascular collapse, presents an unforgettable picture. The prognosis is invariably grave, and no proved case has been known to recover.

Although this syndrome is most often associated with a meningococcemia,[3] infections with other organisms have been reported. The hemolytic streptococcus,[4] the pneumococcus,[5] the hemophilus influenza[6] have been found to be causative agents, and it has occurred in typhoid fever and in smallpox[7].

The usual course is so rapid that there is no time for studies which might clarify the role of the adrenal in the collapse which invariably precedes death. Loeb[8] has reported chemical studies of the blood in proved cases, which were typical of cortical insufficiency. Apparent cures of the condition have been reported,[9] and in these cases the treatment has consisted of sulfonamides for the infection, with intravenous infusions of sodium chloride, glucose, and cortical extract to counteract the collapse and to replace the lost adrenal secretion. However, since adrenal hemorrhage found at autopsy is an integral part of the condition, one can never be sure that in cases which recover, one has been dealing with a true Waterhouse-Friderichsen syndrome.

Case 1.—Private R. S., white, eighteen, was admitted to Station Hospital, Fort Dix, New Jersey, in a critical, semicomatose condition. The history accompanying the patient stated that for three days prior to entry the patient noticed "hives" over the abdomen and face. The night before admission he had several chills, and a few hours before coming to the hospital he complained of pains in the legs, dizziness, and blurring of vision.

On physical examination, the patient was acutely ill with a temperature of 104 degrees Fahrenheit. Restless, disoriented, and aroused with difficulty, he could not answer questions. His face was dusky, and his entire body covered with a purpuric macular rash, the macules varying from pea to lima-bean size. In many places the rash was confluent, giving the body a blotchy appearance. The forearms were cyanotic. The pupils were dilated and responded sluggishly to light. There were numerous subconjunctival petechiae. The heart, lungs, and abdomen showed nothing remarkable. The blood pressure was ninety systolic and sixty diastolic. The neck was slightly rigid, Kerning and Brudzinski signs were bilaterally positive. The laboratory findings were not remarkable. The platelet count was 210,000 per cubic millimeters. The clinical diagnoses were: (1) meningococcemia, with probable hemorrhage into the adrenals and (2) meningococcus meningitis. Sulfathiazole was given, five grams for the first dose, and two grams every four hours.

*Approved for publication.

The clinical course was rapid and inexorably downhill. He sank into deeper coma and died five hours after entry.

Autopsy was performed four and one-half hours after death. The principal changes noted were as follows: The epicardium and the endocardium were studded with petechiae. The lungs, the abdominal viscera, and the gastrointestinal tract were negative. The entire surface of the brain was covered with petechiae, which were most noticeable in the floor of the fourth ventricle. The most interesting findings, however, were in the adrenal glands. Both of these organs were intensely hemorrhagic and distended. Gross section revealed an intermixture of blood and glandular substance, indicating frank hemorrhage.

Culture of blood from the heart resulted in small, pale, translucent colonies, smears from which showed gram negative diplococci. Subcultures in the various carbohydrate media proved the organism to be the meningococcus. Culture of cerebrospinal fluid removed from the cisterna magna was negative.

Histologic examination of the adrenals showed the following: The veins and capillaries in the surrounding fat showed moderate congestion; the arterioles presented normal walls. The adrenal capsule was normal. Throughout the cortex and most marked in the formatio reticularis there was a marked capillary injection and gross hemorrhage. The cortical walls were widely separated, compressed, rich in lipoids. The sinusoids of the medullary portion were congested.

Pathological diagnoses were: (1) meningococcemia; (2) multiple petechiae of the brain, peritoneum, epicardium, pericardium, and endocardium; (3) extensive bilateral, adrenal hemorrhage.

The cause of death was acute meningococcemia, with bilateral adrenal hemorrhage (the Waterhouse-Friderichsen syndrome).

Case 2.—Private U. A. D., white, aged twenty-one, was admitted to the Station Hospital, Fort Dix, New Jersey, complaining of painful feet, nausea, vomiting, and diarrhea. He had been ill for three days. Family and previous medical history were unimportant.

On physical examination the patient had a temperature of 106 degrees Fahrenheit by rectum. The respirations were twenty-eight and the pulse 130 per minute. The patient was covered with a hemorrhagic rash. Petechiae were present in the subconjunctival and buccal mucosae. The hemorrhagic areas varied from two to seven millimeters in size, and assumed bizarre shapes when they were confluent. The hands and feet were cyanotic. The heart, lungs, and abdominal viscera were negative. Blood pressure was 100 systolic and seventy diastolic and remained unchanged until the end. Laboratory studies of the blood were negative except for the platelet count, which was 190,000 per cubic millimeters. Neurological examination was negative. In cultures of the blood the meningococcus was demonstrated. This was confirmed by examination of smears made from colonies and by sugar fermentation reactions. The clinical diagnosis was acute meningococcemia, with probable hemorrhage into the adrenal glands.

The patient was given five grams of sodium sulfathiazole intravenously and 2,000 cubic centimeters of five per cent glucose in normal saline. Four hours later he was given two grams of sulfathiazole. The treatment had no effect and the patient became progressively weaker. The blood pressure remained unchanged. His cyanosis increased, the temperature rose to 107 degrees Fahrenheit, and he expired twelve hours after entry.

An autopsy which was performed five hours after death showed the following important changes: The peritoneum, the visceral pericardium, and the epicardium were studded with petechiae. There were small petechiae throughout both cerebral hemispheres and in the floor of the fourth ventricle. The adrenal glands were distended and of a deep red color. They weighed thirty grams each. On section blood oozed from the gland and revealed areas of partially organized clot which had replaced the glandular substance.

Histologic examination of the adrenals

showed the following: The adrenal capsule was thin and intact. There was marked congestion and hemorrhage throughout the cortex, the formatio reticularis, and the medullary parenchyma. A few isolated lines of cortical cells rich in lipoids were seen.

Pathological diagnoses were: (1) meningococcemia; (2) multiple petechiae of brain, peritoneum, epicardium, pericardium, and endocardium; (3) extensive bilateral adrenal hemorrhage.

The cause of death was acute meningococcemia with bilateral adrenal hemorrhage (the Waterhouse-Friderichsen syndrome).

Comment.—The cause of the hemorrhage into the adrenal glands in these fulminating septicemias has never been satisfactorily explained. It might be the result of toxemia, for it has been demonstrated that purpuric reactions can be produced in animals by injection of bacterial autolysates.[10] Since the adrenals are among the most vascular organs in the body,[11] it can be postulated that the same factors which produce the purpura may also be the cause of the adrenal hemorrhage. The mechanism of the action may be considered from two aspects: (a) the changes in the number of platelets in the circulating blood and the toxic depression of the bone marrow; (b) the injury to the capillary endothelium. Both of these factors are necessary. Although the number of megakaryocytes may be unaltered,[12] qualitative changes[13] in these cells (vacuoles in the cytoplasm, changes in size and shape of the nuclei) have been described. The production of platelets may, therefore, be retarded. But even if the number of platelets were markedly diminished, hemorrhage would not necessarily result. Changes in the capillary wall, either increased permeability or reduced contractility, must also be present. In hemorrhage in cases of artificially induced pyrexia endothelial damage has been demonstrated by the low levels of capillary resistance to negative pressure tests.[14] Bedson[15] proved the relation of platelets and capillary integrity experimentally. He developed an antibody against platelets with which he was able to produce a severe thrombocytopenia. No bleeding resulted, however, and it was only when an "anti-red serum" was given which produced capillary injury that the injection of the platelet antibody produced hemorrhage.

The relatively large amount of septic blood which flows through the adrenals causes extensive injury to the capillary endothelium, and this deterioration of the capillary walls allows the blood to escape into the tissues. In ordinary circumstances platelets would be able by depositing themselves on the endothelium to seal the defects. In overwhelming infections, such as the Waterhouse-Friderichsen syndrome, the platelets are unable to fulfill this function because their production is retarded by the toxic depression of the bone marrow and because they are utilized in large numbers elsewhere. For it must be kept in mind that what occurs in the adrenals is happening in a smaller scale throughout the body. To these factors must be added the possibility of septic emboli or clumps of organisms occluding the smaller vessels of the gland, with resultant necrosis and breakdown of capillary walls and hemorrhage into the surrounding parenchyma. The infiltration of the gland by blood continues unopposed with subsequent destruction of the organ. The loss of adrenal secretions and toxemia are the direct causes of death.

BIBLIOGRAPHY

1. Thompson, J. L.: Unpublished data.

2. Brinton, D.: "Cerebrospinal Fever." Baltimore, Maryland, The Williams-Wilkins Company, 1941, p. 57.

3. Aegerter, E. E.: "The Waterhouse-Friderichsen Syndrome: Report of Two Cases." Journal of American Medical Association, 106: 1715 (May 16), 1936.

4. Fox, M. J., and Enzer, N.: "A Consideration of the Phenomenon of Purpura Following Scarlet Fever." American Journal of Medical Science, 196, 321, 1938.

5. Bickel, G.: "Septicemie suraigue avec surrenalite hemorrhagique et purpura termine par guerison." Rev. med. de las Suisse Rom. 60: 1058 (25 Dec.), 1940.

6. Lindsay, J. W., and Rice, E. C., et al.: "The Waterhouse-Friderichsen Syndrome: Report of

Seven Cases." American Journal of Medical Science, 201: 263, 1941.

7. Ikeda, K.: "Blood in Smallpox During Recent Epidemic." Archives of Internal Medicine, 37: 660, 1926.

8. Loeb, R. F.: Personal communication.

9. Bickel, G.: Loc. cit.

10. Goodner, K., and Horsfall, F. L. J.: "The Purpuric Reaction Produced in Animals by Derivatives of the Pneumococcus." Proceedings of Society of Experimental Biology and Medicine, 37: 178, 1937.

11. Best, C. H., and Taylor, N. B.: "The Physiological Basis of Medical Practice," Edition 3, Baltimore, Maryland. The Williams and Wilkins Company, 1943, p. 156.

12. Wintrobe, M. M.: "Clinical Hematology." Philadelphia, Pennsylvania. Lea and Febiger, 1942, p. 556.

13. Limarzi, L. R., and Schleicher, E. M.: "The Reaction of Peripheral Blood and Bone Marrow in Chronic Hemorrhage and in Essential Thrombopenic Purpura." Journal of American Medical Association, 114: 12, 1940.

14. Rossman, P. L.: "Capillary Resistance in Artificially Induced Fever." Clinical Bulletin of School of Medicine. Western Reserve University, 3: 89, 1939. Perlman, L., and Fox, T. A.: "Hemorrhagic Diatheses." Archives of Internal Medicine, 68: 112, 1941.

15. Bedson, S. P.: "Blood Platelet Antiserum: Its Specificity and Role in the Experiment Production of Purpura." Journal of Pathology and Bacteriology, 25: 94, 1922.

Make Your

Reservations Now

110th STATE MEETING

Noel Hotel

Nashville, April 11-12-13

TENNESSEE DOCTORS AND THE MILITARY SERVICE

The following is a list of Tennessee doctors who have applied for a commission in the Army or Navy. They are arranged in two categories as follows: first, those who have been commissioned and are on duty; second, those who have applied for a commission and been rejected on physical grounds. The list under each category is arranged according to counties.

The list is not complete according to the date of publication. It is accurate in so far as our information goes as of the date the JOURNAL goes to press.

THE HONOR ROLL OF THE MEDICAL PROFESSION IN TENNESSEE NOW SERVING IN THE ARMED FORCES

County	*Name*	*Address*
Anderson	P. M. Dings	Briceville
Anderson	A. K. Morris	Fork Mountain
Anderson	Geo. M. Kelley	Lake City
Anderson	Horton DuBard	Knoxville
Bedford	H. J. Shull	Shelbyville
Blount	R. H. Haralson	Maryville
Blount	Joseph T. Marshall	Chattanooga
Blount	Lowell E. Vinsant	Maryville
Bradley	Dwight N. Arnold	Cleveland
Bradley	A. L. Ball	Cleveland
Bradley	Wm. A. Garrott	Cleveland
Bradley	Claud H. Taylor	Cleveland
Bradley	Madison S. Trewhitt	Cleveland
Campbell	O. H. Coleman*	LaFollette
Campbell	Jos. McCoin	LaFollette
Carter	H. B. Damron	Elizabethton
Carter	E. L. Caudill, Jr.	Elizabethton
Carter	J. B. Warren	Elizabethton
Carter	W. W. Evans	Elizabethton
Claiborne	E. A. McEver	Pruden
Cocke	Haynes B. Cates	Newport
Cocke	Thos. L. Harvey	Newport
Cocke	W. C. Ruble, Jr.	Newport
Cocke	Glenn C. Shults	Newport
Coffee	G. W. Shelton	Manchester
Cumberland	Price H. Duff	Crossville
Davidson	Geo. A. Hatcher	Cedar Grove, N. J.
Davidson	David F. Johnson	Madison College
Davidson	James P. Anderson	Nashville
Davidson	John W. Anderson	Nashville
Davidson	Jos. D. Anderson	Nashville
Davidson	Ralph Angelucci	Nashville
Davidson	Ralph V. Ashbaugh	Nashville
Davidson	Robert D. Beech	Nashville
Davidson	F. T. Billings	Nashville
Davidson	James Frazier Binns	Nashville
Davidson	R. W. Blumberg	Nashville
Davidson	H. K. Brask	Nashville
Davidson	Robert N. Buchanan, Jr.	Nashville
Davidson	Ransom R. Buchholz	Nashville
Davidson	F. W. Buckner	Nashville
Davidson	John C. Burch	Nashville
Davidson	Roger B. Burrus	Nashville
Davidson	B. F. Byrd, Jr.	Nashville
Davidson	Newton A. Cannon	Nashville
Davidson	Henry M. Carney	Nashville
Davidson	Geo. K. Carpenter	Nashville
Davidson	Arthur H. Cassady	Nashville
Davidson	Lee Farrar Cayce	Nashville
Davidson	Jesse H. Chandler (Col.)	Nashville
Davidson	Sam C. Cowan, Jr.	Nashville
Davidson	R. R. Crutcher	Nashville
Davidson	Marion I. Davis	Nashville
Davidson	Walter L. Diveley	Nashville
Davidson	Thos. A. Donnel	Nashville
Davidson	R. L. Dozier, Jr.	Nashville
Davidson	J. J. Eberhart	Nashville
Davidson	P. C. Elliott	Nashville
Davidson	Frank F. Ellis	Nashville
Davidson	Joe W. Fenn	Nashville
Davidson	Ray O. Fessey	Nashville
Davidson	C. M. Fishbach	Nashville
Davidson	Benjamin P. Folk	Nashville
Davidson	Garth E. Fort	Nashville
Davidson	S. F. Fowler	Nashville
Davidson	John W. Frazier, Jr.	Nashville
Davidson	Thos. F. Frist	Nashville
Davidson	R. K. Galloway	Nashville
Davidson	James C. Gardner	Nashville
Davidson	Dan C. Gary	Nashville
Davidson	Hamilton V. Gayden	Nashville
Davidson	L. R. Gayden	Nashville
Davidson	H. L. Gilliand	Nashville
Davidson	J. E. Goldsberry	Nashville
Davidson	David K. Gotwald	Nashville
Davidson	Thos. Grizzard	Nashville
Davidson	Laurence A. Grossman	Nashville
Davidson	James W. Harrison	Nashville
Davidson	James T. Hayes	Nashville
Davidson	Harold B. Henning	Nashville
Davidson	Rafael Hernandez (Col.)	Nashville
Davidson	Irving R. Hillard	Nashville
Davidson	Charles Fowler Hollabaugh	Nashville
Davidson	Nathan P. Horner	Nashville
Davidson	Geo. B. Hubbard	Nashville
Davidson	Vernon Hutton, Jr.	Nashville
Davidson	D. J. Johns, Jr.	Nashville
Davidson	Geo. S. Johnson	Nashville
Davidson	Harry D. Jones	Nashville
Davidson	Sam Ogle Jones	Nashville
Davidson	Allen Kennedy	Nashville
Davidson	W. G. Kennon, Jr.	Nashville
Davidson	G. E. Kinzel	Nashville
Davidson	James A. Kirtley, Jr.	Nashville
Davidson	W. J. Lee, Jr.	Nashville
Davidson	Herman Levinson	Nashville
Davidson	R. Carl Light	Nashville
Davidson	Rudolph A. Light	Nashville
Davidson	Jas. A. Loveless	Nashville
Davidson	J. P. Lowe	Nashville
Davidson	Sol Lowenstein	Nashville
Davidson	Jas. R. McMillan	Nashville

*Deceased.

Davidson—Robt. H. Magruder—Nashville
Davidson—C. G. deGutierrez-Mahoney—Nashville
Davidson—Travis H. Martin—Nashville
Davidson—James H. Matthews—Nashville
Davidson—Benjamin R. Mayes—Nashville
Davidson—Jas. G. Mead—Nashville
Davidson—Chas. A. Mella—Nashville
Davidson—Cleo M. Miller—Nashville
Davidson—Hugh H. Mills—Nashville
Davidson—Theodore Morford—Nashville
Davidson—Hugh J. Morgan—Nashville
Davidson—N. B. Morris—Nashville
Davidson—Paul G. Morrissey, Jr.—Nashville
Davidson—Max K. Moulder—Nashville
Davidson—John R. Olson—Nashville
Davidson—Fred W. T. Overton—Nashville
Davidson—Wm. T. Palm—Nashville
Davidson—Jos. H. Patterson—Nashville
Davidson—Robt. C. Patterson, Jr.—Nashville
Davidson—E. White Patton—Nashville
Davidson—George C. Porter (Col.)—Nashville
Davidson—John C. Ransmeier—Nashville
Davidson—S. B. D. Rhea—Nashville
Davidson—E. L. Rippy—Nashville
Davidson—E. M. Robinson—Nashville
Davidson—Louis Rosenfeld—Nashville
Davidson—A. F. Russell—Nashville
Davidson—Jos. H. Sayers, Jr.—Nashville
Davidson—Robert E. Schell—Nashville
Davidson—Jesse F. Scott—Nashville
Davidson—Jos. A. Scott—Nashville
Davidson—Ewing Seligman—Nashville
Davidson—Maurice Seligman—Nashville
Davidson—Melvin M. Simmons—Nashville
Davidson—Henry Carroll Smith—Nashville
Davidson—Joe M. Strayhorn—Nashville
Davidson—Thos. B. Stone—Nashville
Davidson—Wm. A. Sullivan—Nashville
Davidson—A. J. Sutherland, Jr.—Nashville
Davidson—A. B. Thach, Jr.—Nashville
Davidson—W. O. Tirrill, Jr.—Nashville
Davidson—Chas. C. Trabue—Nashville
Davidson—H. M. Truebger—Nashville
Davidson—William H. Tucker—Nashville
Davidson—W. A. Van Nortwick—Nashville
Davidson—Paul L. Warner—Nashville
Davidson—Thos. S. Weaver—Nashville
Davidson—B. M. Weinstein—Nashville
Davidson—Arthur L. White—Nashville
Davidson—Joe T. Whitfield—Nashville
Davidson—Claiborne Williams—Nashville
Davidson—Herbert Wilson, Jr.—Nashville
Davidson—W. C. Winton—Nashville
Davidson—Jos. C. Wood—Nashville
Davidson—Thos. E. Wyatt—Nashville
Davidson—Chas. R. Yancey—Nashville
Davidson—Hugh Amos—Old Hickory
Davidson—Alvin Hawkins—Old Hickory
Davidson—A. S. Koenig—Old Hickory
Davidson—E. B. Rhea—Old Hickory
Dickson—W. M. Jackson—Dickson
Dyer—W. E. Anderson—Dyersburg
Dyer—J. Paul Baird—Dyersburg
Dyer—C. L. Denton—Dyersburg
Dyer—O. B. Landrum—Dyersburg
Fayette—John L. Armstrong—Somerville
Franklin—Geo. L. Smith—Decherd
Franklin—Kenneth P. Brown—Huntland
Gibson—Jas. O. Fields—Milan
Gibson—Basil T. Bennett, Jr.—Trenton
Gibson—Geo. Dodson—Humboldt
Gibson—Roscoe Faulkner—Trenton
Gibson—Henry Jas. Roberts—Trenton
Greene—C. H. Henard—Mosheim
Greene—John G. Zirkle—Greeneville
Hamblen—D. R. Roach—Morristown
Hamblen—D. J. Zimmermann—Morristown
Hamilton—Howard M. Ausherman—Chattanooga
Hamilton—C. H. Barnwell—Chattanooga
Hamilton—Alvin H. Benz—Chattanooga
Hamilton—Franklin B. Bogart—Chattanooga
Hamilton—F. G. Bratley—Chattanooga
Hamilton—Julian C. Brooks, Jr.—Chattanooga
Hamilton—S. W. Brown—Chattanooga
Hamilton—E. F. Buchner—Chattanooga
Hamilton—Walter Buckner, II—Chattanooga
Hamilton—Douglas Chamberlain—Chattanooga
Hamilton—John W. Claiborne, Jr.—Chattanooga
Hamilton—H. C. Darnall—Chattanooga
Hamilton—J. R. Fancher—Chattanooga
Hamilton—Richard V. Fletcher—Chattanooga
Hamilton—J. L. Hamilton—Chattanooga
Hamilton—F. F. Harris—Chattanooga
Hamilton—Carl A. Hartung—Chattanooga
Hamilton—H. D. Hickey—Chattanooga
Hamilton—J. M. Higginbotham—Chattanooga
Hamilton—H. T. Holden—Chattanooga
Hamilton—Jos. W. Johnson, Jr.—Chattanooga
Hamilton—Howard H. Karr—Chattanooga
Hamilton—Jos. B. Killebrew—Chattanooga
Hamilton—J. J. Killeffer—Chattanooga
Hamilton—P. H. Livingston—Chattanooga
Hamilton—T. A. Lowery—Chattanooga
Hamilton—E. F. McCall—Chattanooga
Hamilton—Augustus McCravey—Chattanooga
Hamilton—Tim J. Manson—Chattanooga
Hamilton—Richard H. Mellen—Chattanooga
Hamilton—Paul H. Milton—Chattanooga
Hamilton—Fay B. Murphey—Chattanooga
Hamilton—E. T. Newell, Jr.—Chattanooga
Hamilton—Wm. E. North—Chattanooga
Hamilton—R. L. Patterson—Chattanooga
Hamilton—C. Thomas Read—Chattanooga
Hamilton—W. D. L. Record—Chattanooga
Hamilton—E. E. Reisman, Jr.—Chattanooga
Hamilton—Gilbert M. Roberts—Chattanooga
Hamilton—Robt. C. Robertson—Chattanooga
Hamilton—T. G. Ross—Chattanooga
Hamilton—Wm. J. Sheridan—Chattanooga
Hamilton—M. J. Smith, Jr.—Chattanooga
Hamilton—Wm. A. Stem—Chattanooga
Hamilton—John A. Steward—Chattanooga
Hamilton—W. Dean Steward—Chattanooga
Hamilton—Paul R. Swanson—Chattanooga
Hamilton—Oliver L. Von Canon—Chattanooga
Hamilton—J. W. Wilson, Jr.—Chattanooga
Hamilton—Robert A. Wise—Chattanooga
Hamilton—J. C. Wright—Chattanooga
Hardeman—Geo. W. Jackson—Bolivar

Hardeman—Wiley D. Lewis—Bolivar
Hardeman—M. J. Stewart—Whiteville
Hardin—C. Whitman Borg—Savannah
Hardin—S. L. Stephenson, Jr.—Savannah
Hawkins—Charles C. Johnson—Pressman's Home
Hawkins—Landrum Tucker—Rogersville
Hawkins—A. S. Yates—Rogersville
Haywood—Robert C. Berson—Brownsville
Henderson—R. M. Conger—Lexington
Henry—J. W. Didcoct—Paris
Henry—Arthur C. Dunlap—Paris
Henry—J. C. McKissick—Paris
Henry—Geo. H. McSwain—Paris
Hickman—Wm. L. Phillips—Centerville
Jefferson—William B. Malcolm—Dandridge
Jefferson—Frank L. Milligan—Jefferson City
Knox—A. J. Weber—Bearden
Knox—Malcolm F. Cobb—Concord
Knox—B. B. Mitchell*—Fountain City
Knox—Charles M. Armstrong—Knoxville
Knox—Spencer Y. Bell—Knoxville
Knox—R. G. Brashear—Knoxville
Knox—A. M. Carr—Knoxville
Knox—E. E. Carrier—Knoxville
Knox—Jack Chesney—Knoxville
Knox—L. W. Chesney—Knoxville
Knox—H. S. Christian—Knoxville
Knox—H. E. Christenberry, Jr.—Knoxville
Knox—Sam M. Cooper—Knoxville
Knox—Sam P. Davidson—Knoxville
Knox—T. P. Day—Knoxville
Knox—W. A. DeSautelle—Knoxville
Knox—T. B. Drinnen—Knoxville
Knox—Richard N. Duffey—Knoxville
Knox—J. Gilbert Eblen—Knoxville
Knox—Jas. B. Ely—Knoxville
Knox—Frank Faulkner—Knoxville
Knox—Peter J. Flippin—Knoxville
Knox—Edgar L. Grubb—Knoxville
Knox—Glenn D. Grubb—Knoxville
Knox—Geo. G. Henson—Knoxville
Knox—Oliver W. Hill, Jr.—Knoxville
Knox—C. R. Huffman*—Knoxville
Knox—C. E. Irwin—Knoxville
Knox—Willard J. Irwin—Knoxville
Knox—H. H. Jenkins—Knoxville
Knox—J. O. Kennedy—Knoxville
Knox—A. H. Lancaster—Knoxville
Knox—R. P. Layman—Knoxville
Knox—J. H. Lesher—Knoxville
Knox—J. D. McCullough—Knoxville
Knox—Wm. T. McPeake—Knoxville
Knox—J. L. Montgomery—Knoxville
Knox—Wm. S. Muse—Knoxville
Knox—E. P. Nicely—Knoxville
Knox—Ralph Nichols—Knoxville
Knox—B. M. Overholt—Knoxville
Knox—Jos. B. Parker, Jr.—Knoxville (Inskip)
Knox—Robt. F. Patterson, Jr.—Knoxville
Knox—Herschel Penn—Knoxville
Knox—Jarrell Penn—Knoxville
Knox—H. L. Pope—Knoxville
Knox—John S. Powers, Jr.—Knoxville
Knox—John A. Range—Knoxville
Knox—Jos. L. Raulston, Jr.—Knoxville
Knox—Hugh C. Reaves—Knoxville
Knox—J. W. Riggs—Knoxville
Knox—J. S. Ruffin, Jr.—Knoxville
Knox—J. H. Saffold—Knoxville
Knox—A. B. Shipley—Knoxville
Knox—P. D. Smith—Knoxville
Knox—J. M. Stockman—Knoxville
Knox—Geo. W. Tharp—Knoxville
Knox—Phil Thomas—Knoxville
Knox—Fred West—Knoxville
Knox—Jacob M. Williams—Knoxville
Knox—Leon J. Willien—Knoxville
Lake—W. T. Rainey—Tiptonville
Lauderdale—J. H. Nunn—Ripley
Lauderdale—W. Val Sanford—Ripley
Lawrence—L. C. Harris, Jr.—Lawrenceburg
Lincoln—R. E. McCown—Fayetteville
Lincoln—Ben H. Marshall—Fayetteville
Lincoln—M. C. Woodfin—Fayetteville
Lincoln—E. S. Leek—Petersburg
Loudon—F. E. Hufstedler—Lenoir City
Loudon—Avery Leeper—Lenoir City
McMinn—S. B. McClary, Jr.—Etowah
McMinn—A. W. Reeser—Athens
McMinn—Lester H. Shields—Athens
McNairy—T. N. Humphrey—Selmer
McNairy—H. O. Mason—Adamsville
Madison—L. D. Farragut—Bemis
Madison—Roderick C. Webb—Bemis
Madison—Everett Archer—Jackson
Madison—C. H. Brown—Jackson
Madison—W. B. Camp—Jackson
Madison—J. E. Douglass—Jackson
Madison—R. S. Hellmann—Jackson
Madison—Frank A. Moore—Jackson
Madison—Roy M. Neudecker—Jackson
Madison—Carl Rogers—Jackson
Madison—A. R. Taylor—Jackson
Madison—J. R. Thompson, Jr.—Jackson
Madison—P. E. Wylie—Jackson
Madison—Stevens Byars—Mercer
Marion—Russell B. James—South Pittsburg
Marshall—A. L. Cooper—Chapel Hill
Marshall—H. B. Disharoon*—Lewisburg
Maury—W. N. Cook—Columbia
Maury—Robin Lyles—Columbia
Maury—J. B. Miller—Columbia
Maury—E. K. Provost—Columbia
Monroe—D. F. Heuer, Jr.—Sweetwater
Monroe—R. M. Price—Sweetwater
Montgomery—J. A. Culbertson—Clarksville
Montgomery—John H. Ledbetter, Jr.—Clarksville
Montgomery—Phillip Lyle—Clarksville
Morgan—R. A. Steadman—Wartburg
Obion—Hal E. Bennett—Troy
Obion—Edward W. Barksdull—Union City
Obion—R. M. Darnall—Union City
Obion—R. G. Latimer, Jr.—Union City
Overton—H. B. Nevans—Livingston
Pickett—Floyd B. Hay—Byrdstown
Polk—Henry S. Harris—Benton
Polk—J. H. Lillard—Benton
Polk—H. H. Hyatt—Copperhill

*Deceased.

Putnam—H. H. Taylor—Cookeville
Putnam—R. L. Akin—Monterey
Roane—L. A. Killeffer—Harriman
Roane—G. D. Schuessler—Oliver Springs
Roane—F. Davis Owings—Rockwood
Robertson—J. C. Lunderman—Orlinda
Robertson—W. P. Stone—Springfield
Rutherford—Harvey W. Carter—Murfreesboro
Rutherford—Thos. G. Gordon—Murfreesboro
Sevier—John A. Conroy—Newton, Mass.
Sevier—Charles E. Pack, Jr.—Sevierville
Sevier—R. M. Perry—Sevierville
Shelby—J. H. Adler—Memphis
Shelby—R. Roger Anderson—Memphis
Shelby—Chas. G. Andrews—Memphis
Shelby—J. M. Aste—Memphis
Shelby—Edward R. Atkinson—Memphis
Shelby—Chas H. Avent—Memphis
Shelby—J. C. Ayres, Jr.—Memphis
Shelby—James M. Bethea—Memphis
Shelby—Willard A. Barnes—Memphis
Shelby—J. D. Biles, Jr.—Memphis
Shelby—Samuel Blackwell—Memphis
Shelby—W. B. Blaisdell, Jr.—Memphis
Shelby—W. T. Black, Jr.—Memphis
Shelby—R. E. Bland (Col.)—Memphis
Shelby—Philip B. Bleecker—Memphis
Shelby—Geo. M. Bogardus—Memphis
Shelby—H. O. Bourkard—Memphis
Shelby—C. G. Bringle—Memphis
Shelby—W. T. Braun, Jr.—Memphis
Shelby—Joseph A. Buchignani—Memphis
Shelby—J. G. Burd—Memphis
Shelby—A. J. Cates—Memphis
Shelby—R. E. Ching—Memphis
Shelby—J. Hughes Chandler—Memphis
Shelby—J. M. Chandler—Memphis
Shelby—J. M. Chambers, Jr.—Memphis
Shelby—R. B. Chrisman, Jr.—Memphis
Shelby—Jos. D. Cleveland—Memphis
Shelby—Isaac S. Coe—Memphis
Shelby—James H. Collins—Memphis
Shelby—John Kerr Crawford—Memphis
Shelby—Phillip T. Crawford—Memphis
Shelby—J. A. Crisler, Jr.—Memphis
Shelby—J. A. Danciger—Memphis
Shelby—Floyd M. Davis—Memphis
Shelby—Chas. J. Deere—Memphis
Shelby—W. F. Dobyns—Memphis
Shelby—John M. Dougall—Memphis
Shelby—E. S. Eddins—Memphis
Shelby—C. Barton Etter—Memphis
Shelby—J. D. Evans—Memphis
Shelby—M. L. Evans—Memphis
Shelby—Taylor Farrar—Memphis
Shelby—Turley Farrar—Memphis
Shelby—Benj. Fendler—Memphis
Shelby—L. F. Ferrell—Memphis
Shelby—B. F. Floyd—Memphis
Shelby—Jos. B. Fowler—Memphis
Shelby—Dale E. Fox—Memphis
Shelby—Jos. A. Gardner, Jr.—Memphis
Shelby—Geo. E. Gish—Memphis
Shelby—Fred A. Goldsberg—Memphis
Shelby—L. I. Goldsmith—Memphis
Shelby—Jack Goltman—Memphis
Shelby—Paul Hill Goodman—Memphis
Shelby—H. B. Gotten—Memphis
Shelby—Nicholas Gotten—Memphis
Shelby—H. D. Gray—Memphis
Shelby—V. A. Hall—Memphis
Shelby—J. A. Hanna—Memphis
Shelby—Carl M. Harwell, Jr.—Memphis
Shelby—R. D. Henderson—Memphis
Shelby—B. S. Henry—Memphis
Shelby—A. L. Herring—Memphis
Shelby—C. H. Householder—Memphis
Shelby—John L. Houston—Memphis
Shelby—Felix A. Hughes—Memphis
Shelby—James G. Hughes—Memphis
Shelby—John D. Hughes—Memphis
Shelby—Wm. E. Hurt—Memphis
Shelby—Chas. W. Ingle—Memphis
Shelby—Alvin Ingram—Memphis
Shelby—Harry Johnson—Memphis
Shelby—Albert M. Jones—Memphis
Shelby—O. N. Jones—Memphis
Shelby—W. B. Key—Memphis
Shelby—John C. King—Memphis
Shelby—Nathanial W. Kuykendall, Jr.—Memphis
Shelby—Chas. K. Lewis—Memphis
Shelby—Frank Linn—Memphis
Shelby—Chas. M. Lobrano—Memphis
Shelby—D. G. Lockwood—Memphis
Shelby—J. P. Lockwood—Memphis
Shelby—J. P. Long, Jr.—Memphis
Shelby—J. H. Lotz—Memphis
Shelby—Wm. M. Lovejoy—Memphis
Shelby—Donald A. McCannel—Memphis
Shelby—O. S. McCown, Jr.—Memphis
Shelby—J. W. McElroy—Memphis
Shelby—Eugene E. McKenzie—Memphis
Shelby—W. F. Mackey—Memphis
Shelby—Wm. Battle Malone, II—Memphis
Shelby—Thomas P. Manigan—Memphis
Shelby—P. M. Markle—Memphis
Shelby—Alfred D. Mason, Jr.—Memphis
Shelby—Wm. P. Maury, Jr.—Memphis
Shelby—R. A. Miller—Memphis
Shelby—R. W. Miller—Memphis
Shelby—E. D. Mitchell, Jr.—Memphis
Shelby—J. C. Mobley, Jr.—Memphis
Shelby—Thos. Lane Moore, Jr.—Memphis
Shelby—J. P. Moss—Memphis
Shelby—Henry Moskowitz—Memphis
Shelby—Francis Murphey—Memphis
Shelby—Van A. Odle—Memphis
Shelby—Bedford T. Otey—Memphis
Shelby—Alfred H. Page—Memphis
Shelby—Wm. H. Parker—Memphis
Shelby—Ben Pentecost—Memphis
Shelby—J. R. Pepin—Memphis
Shelby—M. L. Pepper—Memphis
Shelby—V. D. Pettit—Memphis
Shelby—Raymond W. Polk—Memphis
Shelby—G. S. Plog—Memphis
Shelby—Ira F. Porter—Memphis
Shelby—Hugh R. Raines—Memphis

Shelby—S. L. Raines—Memphis
Shelby—R. Beverley Ray—Memphis
Shelby—L. C. Ramsay—Memphis
Shelby—Hal S. Rhea—Memphis
Shelby—Chas. G. Robinson—Memphis
Shelby—Wm. A. Runkle—Memphis
Shelby—Wm. T. Satterfield—Memphis
Shelby—Schayel Scheinberg—Memphis
Shelby—Lee Jess Seargeant, Jr.—Memphis
Shelby—E. C. Segerson—Memphis
Shelby—J. L. Shaw—Memphis
Shelby—Hugh Smith—Memphis
Shelby—P. A. Statile—Memphis
Shelby—S. D. Sullenberger—Chattanooga
Shelby—Bryant S. Swindoll—Memphis
Shelby—B. S. Talley—Memphis
Shelby—R. C. Taylor—Memphis
Shelby—M. J. Tendler—Memphis
Shelby—W. M. Tipton—Memphis
Shelby—A. B. Tripp—Memphis
Shelby—I. F. Tullis, Jr.—Memphis
Shelby—C. F. Varner—Memphis
Shelby—Jack Viscofsky—Memphis
Shelby—R. A. Wallace—Memphis
Shelby—T. L. Waring—Memphis
Shelby—O. S. Warr, Jr.—Memphis
Shelby—W. W. Watkins—Memphis
Shelby—J. E. Watson, Jr.—Memphis
Shelby—Julian K. Welch, Jr.—Memphis
Shelby—S. I. Wener—Memphis
Shelby—Horace G. Williams—Memphis
Shelby—W. L. Wilhelm—Memphis
Shelby—Harwell Wilson—Memphis
Shelby—John M. Wilson—Memphis
Shelby—J. E. Wilson—Memphis
Shelby—C. Frank Yates—Memphis
Sullivan—J. W. Erwin—Blountville
Sullivan—W. C. Carreras—Bristol
Sullivan—Tom Kuhnert—Bristol
Sullivan—John Marcy—Bristol
Sullivan—G. W. McCall—Bristol
Sullivan—B. W. Mongle—Bristol
Sullivan—L. B. Snapp, II—Bristol
Sullivan—Myron J. Adams—Kingsport
Sullivan—F. L. Alloway—Kingsport
Sullivan—R. W. Asthalter—Kingsport
Sullivan—H. O. Bolling—Kingsport
Sullivan—R. H. Brown—Kingsport
Sullivan—H. S. Burem—Kingsport
Sullivan—John B. Hamilton—Kingsport
Sullivan—B. Roy Howard—Kingsport
Sullivan—K. R. Kiesau—Kingsport
Sullivan—M. D. Massengill, Jr.—Kingsport
Sullivan—J. F. Morton—Kingsport
Sullivan—R. G. Nichols—Kingsport
Sullivan—Raymond A. Steadman—Kingsport
Sumner—P. M. Huggin—Gallatin
Sumner—Benjamin A. Warren—Gallatin
Tipton—N. L. Hyatt—Covington
Tipton—J. S. Ruffin, Jr.—Covington
Tipton—O. J. Swisher—Covington
Unicoi—R. H. Harvey—Erwin
Unicoi—W. C. Humbert—Erwin
Unicoi—H. L. Monroe—Erwin
Union—Norman H. Rucker—Luttrell
Washington—C. M. Creech—Johnson City
Washington—H. B. Fuqua—Johnson City
Washington—C. S. Gresham—Johnson City
Washington—W. D. Hankins—Johnson City
Washington—Harry Myron, Jr.—Johnson City
Washington—W. L. Poole—Johnson City
Washington—W. G. Preas—Johnson City
Washington—Hugh F. Swingle—Johnson City
Washington—Charles P. Wofford—Johnson City
Washington—H. B. Cupp—Mountain Home
Washington—John Busey—Mountain Home
Washington—Ernest Marcus—Mountain Home
Weakley—Paul W. Wilson—Dresden
Weakley—Madison H. Buckley—Martin
Williamson—W. F. Roth, Jr.—Franklin
Wilson—O. R. Hill—Lebanon
Wilson—James McFarland, Jr.—Lebanon
Wilson—W. K. Tilley—Lebanon

DOCTORS WHO APPLIED FOR COMMISSIONS, BUT REJECTED ON PHYSICAL GROUNDS

Anderson—Trent O. Huff—Clinton
Cannon—Carl E. Adams—Woodbury
Anderson—A. J. Butler—Clinton
Carter—John L. Chesnut—Elizabethton
Carter—E. T. Pearson—Elizabethton
Coffee—Wm. M. Minnis—Manchester
Davidson—E. E. Anderson—Donelson
Davidson—R. Z. Linney—Madison
Davidson—Joe E. Sutherland—Madison College
Davidson—J. J. Ashby—Nashville
Davidson—Edward H. Barksdale—Nashville
Davidson—Lynch D. Bennett—Nashville
Davidson—Randolph A. Cate—Nashville
Davidson—David W. Hailey—Nashville
Davidson—William Palmer Hardy—Nashville
Davidson—Andrew N. Hollabaugh—Nashville
Davidson—Thos. M. Jordan—Nashville
Davidson—J. K. Kaufman—Nashville
Davidson—Carl Kirchmaier—Nashville
Davidson—James C. Overall—Nashville
Davidson—James N. Owens—Nashville
Davidson—Don C. Peterson—Nashville
Davidson—Paul E. Purks—Nashville
Davidson—Jas. S. Reed—Nashville
Davidson—Eugene M. Regen—Nashville
Davidson—S. S. Riven—Nashville
Davidson—Trimble Sharber—Nashville
Davidson—T. Emerson Simpkins—Nashville
Davidson—D. W. Smith—Nashville
Davidson—Herman Spitz—Nashville
Davidson—Albert Weinstein—Nashville
Davidson—O. L. Westbrooks (Col.)—Nashville
Davidson—Eston D. White—Nashville
Davidson—W. W. Wilkerson, Jr.—Nashville
Davidson—V. J. Wong—Nashville
Davidson—J. H. Solomon—Old Hickory
Franklin—Jeff C. Moore—Winchester
Gibson—Chas. W. Davis—Humboldt
Gibson—Henry N. Moore—Milan
Gibson—F. A. Taylor—Trenton
Greene—John A. Brabson—Greeneville
Greene—Rae B. Gibson—Greeneville
Hamblen—M. J. Bellaire—Morristown

Hamblen—Y. A. Jackson—Morristown
Hamblen—Maxwell D. Raine—Morristown
Hamilton—Justin O. Adams—Chattanooga
Hamilton—William D. Anderson—Chattanooga
Hamilton—William Ross Buttram—Chattanooga
Hamilton—Erwin M. Funderburk—Chattanooga
Hamilton—Orville C. Gass—Chattanooga
Hamilton—Foster Hampton, Jr.—Chattanooga
Hamilton—H. P. Hewitt—Chattanooga
Hamilton—John W. Hocker—Chattanooga
Hamilton—D. Isbell—Chattanooga
Hamilton—D. B. Karr—Chattanooga
Hamilton—Geo. E. Lacy—Chattanooga
Hamilton—J. G. McMillan—Chattanooga
Hamilton—Fred E. Marsh—Chattanooga
Hamilton—J. R. Martin—Chattanooga
Hamilton—Clarence Shaw—Chattanooga
Hamilton—H. J. Starr—Chattanooga
Hamilton—W. E. Van Order—Chattanooga
Hamilton—J. J. Word—Chattanooga
Hamilton—P. H. Dietrich—Ooltewah
Hardeman—Aubrey Richards—Whiteville
Hawkins—John E. Kite, Jr.—Bulls Gap
Henry—Barton McSwain—Paris
Knox—Troy P. Bagwell—Knoxville
Knox—Charles W. Black—Knoxville
Knox—P. H. Cardwell—Knoxville
Knox—William E. Clark—Knoxville
Knox—Roy Fisher—Knoxville
Knox—Louis E. Haun—Knoxville
Knox—John R. Hill—Knoxville
Knox—Geo. T. Howard—Knoxville
Knox—George L. Inge—Knoxville
Knox—John Moore—Knoxville
Knox—Owen D. Moore—Knoxville
Knox—Joel C. Morris—Knoxville
Knox—Frank O. Nichols—Knoxville
Knox—Bruce R. Powers—Knoxville
Knox—V. I. Smith—Knoxville
Knox—Geo. M. Trotter—Knoxville
Knox—Richard G. Waterhouse—Knoxville
Knox—V. M. Williger—Knoxville
Lawrence—V. H. Crowder—Lawrenceburg
Lawrence—W. O. Crowder—Lawrenceburg
Loudon—J. P. Cullum—Lenoir City
Madison—Glenn D. Batten—Jackson
Madison—Henry H. Herron—Jackson
Madison—Leland M. Johnston—Jackson
Madison—John C. Pearce—Jackson
Madison—Alvin Rosenbloom—Jackson
Marshall—J. T. Gordan—Lewisburg
Maury—H. C. Busby—Columbia
Maury—Leon S. Ward—Mt. Pleasant
Montgomery—B. H. Webster—Clarksville
Morgan—Wm. E. Gallion—Oakdale
Robertson—Raymond H. Hirsch—Whitehouse
Robertson—J. E. Wilkison—Springfield
Sevier—R. A. McCall—Sevierville
Sevier—J. Myron Mittleman—Sevierville
Shelby—Jacob Alperin—Memphis
Shelby—H. E. Atherton—Memphis
Shelby—W. W. Aycock—Memphis
Shelby—George B. Bland—Memphis
Shelby—Harold B. Boyd—Memphis
Shelby—James T. Bridges—Memphis
Shelby—Davis L. Brown—Memphis
Shelby—W. D. Burkhalter—Memphis
Shelby—Chas. H. Carter—Memphis
Shelby—Peter J. Cavallo—Memphis
Shelby—E. D. Connell—Memphis
Shelby—Jewell M. Dorris—Memphis
Shelby—George C. Furr—Memphis
Shelby—David W. Goltman—Memphis
Shelby—H. Wm. Greenburgh—Memphis
Shelby—A. J. Grobmyer, Jr.—Memphis
Shelby—Robert M. Gross—Memphis
Shelby—Chas. Wm. Harting—Memphis
Shelby—H. J. Jacobson—Memphis
Shelby—Lyman Kasselberg—Memphis
Shelby—Robert A. Knight—Memphis
Shelby—Phil M. Lewis—Memphis
Shelby—Frank O. McGehee—Memphis
Shelby—C. H. McKay—Memphis
Shelby—Jas. W. McKinney—Memphis
Shelby—Oliver S. Matthews—Memphis
Shelby—Leroy H. Mayfield—Memphis
Shelby—C. Wilson Moore—Memphis
Shelby—Swan B. Moss—Memphis
Shelby—Thos. C. Moss—Memphis
Shelby—Roland H. Myers—Memphis
Shelby—Charles M. Oberschmidt—Memphis
Shelby—Donald W. Oelker—Memphis
Shelby—Chas. B. Olim—Memphis
Shelby—Leo F. Pierotti—Memphis
Shelby—Michael J. Roach, Jr.—Memphis
Shelby—Jesse M. Roy—Memphis
Shelby—R. O. Rychener—Memphis
Shelby—Arthur R. Sample—Memphis
Shelby—David E. Scheinberg—Memphis
Shelby—Phillip C. Schreier—Memphis
Shelby—Lawrence Sebulsky—Memphis
Shelby—Chas. C. Smeltzer—Memphis
Shelby—Jos. S. Stabnick—Memphis
Shelby—E. A. Stanfield, Jr.—Memphis
Shelby—O. B. Stegall—Memphis
Shelby—Edwin M. Stevenson—Memphis
Shelby—W. W. Taylor—Memphis
Shelby—John E. Whiteleather—Memphis
Smith—L. R. Sloan—Carthage
Sullivan—Wm. H. Chappell—Kingsport
Sullivan—W. A. Wiley—Kingsport
Washington—J. R. Bowman—Johnson City
Washington—T. P. McKee—Johnson City
Washington—John F. Moore—Johnson City
Washington—G. V. Stanton—Limestone
Wayne—Dexter L. Woods—Waynesboro
Weakley—R. W. Brandon, Jr.—Greenfield
Weakley—M. D. Ingram—Dresden
Williamson—R. H. Hutcheson—Franklin

THE JOURNAL
OF THE
TENNESSEE STATE MEDICAL ASSOCIATION
Devoted to the Interests of the Medical Profession of Tennessee
Office of Publication, 508 Doctors Bldg., Nashville, Tenn.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1932.

Copyright for protection against republication. Journals of the American Medical Association and of other state medical associations may feel free to quote from this journal whenever they desire, merely giving credit to this publication.

H. H. SHOULDERS, M.D., Editor and Secretary

DECEMBER, 1943

EDITORIAL

A Christmas Greeting

The headquarters staff, Doctor Shoulders, Doctor Hardy, and Miss Batey, wish to extend to the membership Christmas greetings and hearty good wishes.

Members who are serving with the armed services, wherever you may be, deserve not only greetings, but assurances that we are trying to keep the home fires burning in the way we believe you want us to.

What Kind of a Country Do Our Soldiers Want to Come Back To?

There has been considerable discussion concerning the America our soldiers wish to come back to.

Plans for aid to them in their transition from the military to their respective civilian places are deserving of applause. Such plans of course need not affect the fundamentals in our American way of life.

Some of the suggestions are advanced by people at such a time and in such a way as to raise a question as to whether they are as much concerned for the wishes of our soldiers as they are for the adoption of their ideas.

The following letter is an answer to the question for at least a few doctors from Tennessee who are serving with the armed forces in foreign lands.

Dear Doctor Shoulders:

Thanks to the Tennessee State Medical Society, THE JOURNAL has been following me very closely and reaches here fairly regularly. I read every word of it with great gusto.

The fight you are waging against socialized medicine is very closely followed by medical officers here. I pass THE JOURNAL around freely, and it is heartily endorsed by all.

We doctors in uniform are willing and happy to do our bit for our country, but we dream of returning to civilian status after the war to practice the fine art of healing as a free profession, and not as dictated by some higher bureaucratic authority. Such a condition is not what we like to think we are fighting for.

Having been overseas for some twenty-two months, I look forward with a great deal of pleasure to returning home and the private practice of medicine as I once knew it. This, I believe, is similar to the desires of thousands of other medical officers.

We of the profession who are fighting America's foreign enemies bid Godspeed to you who are fighting on the home front. Let us keep up the fight until a dual victory is ours.

(Signed) *Major, Medical Corps.*

Let Us Think Straight About This Matter

It has seemed to me that the remarkable military achievements of the Russian armies, which achievements we all recognize, respect, and applaud, may be serving as a stimulus to increased activities by certain communistic elements in our own country.

I would not for one moment argue that the people of Russia are not better off than they were under the regime of the Czars. From limited, but generally accepted, knowledge of conditions which existed under the Czars, there was cause a plenty

for a revolution. There was no freedom; no education; and no opportunity outside the caste for individual achievement. The people then had much to gain and almost nothing to lose from a revolutionary effort.

Nor would I question the assertion that a totalitarian system of government is in better position to wage war effectively. This is generally accepted.

There are supposedly well-informed people who insist that the people of Russia, with widespread education now available to the people, are now making notable advances in the direction of democracy.

The point I wish to make is that none of these developments and achievements in Russia supply the slightest reason or excuse for the people of the United States to discard democracy and embrace communism as a way of life.

Our democracy has proven its value in too many ways for too long a time for us to sacrifice it, even "by degrees," on any evidence so far presented.

The Use of Federal Funds to "Level Up" Preventive Medical Services

For a great many years the Congress has appropriated relatively large sums of money for the purpose of "leveling up" preventive medical services in counties throughout the nation. Obviously the appropriation was intended to aid counties which need the aid in providing such services and thus bring the preventive services in all counties (rich or poor) up to the same general level of efficiency.

This was a laudable purpose and the Congress has appropriated money in increasing amounts over the years.

This laudable purpose has been frustrated by the federal authorities placed in charge of the administration of these funds.

A policy was adopted and followed which compels that these funds be allocated to counties on the basis of their *ability to match* funds instead of on the basis of *need*. The states are required to match the federal fund on some basis, and counties are then required to match both the state and federal funds on some basis—usually one-third each.

It is obvious that such a policy not only fails to accomplish the purpose for which the funds were appropriated; it actually accomplishes the opposite by accentuating the difference in services available to the people in the richer counties and the poorer counties. Those counties which can match the funds get the benefits and the poor counties which need the aid cannot match and therefore do not get any aid, either state or national.

For example, Cheatham County joins Davidson on the north. It is one of the poorer counties. It gets no aid. Rutherford, Sumner, Williamson, and Davidson, all counties with more taxable wealth, get the aid. This same general condition obtains throughout the state.

This editorial is not written as a criticism of the State Health Department, nor of the counties which have taken advantage of it. It is written because the conditions in these poorer counties are referred to so often by those who seek the adoption of a large federally controlled and financed system of medical care. These poorer counties are pointed to as convincing evidence of the need for such an all-out federal plan, and in some instances the blame for this unequal distribution of preventive medical service is directed at the medical profession.

In a recent article, which appeared in a magazine with a wide circulation, reference was made to the inadequate services in forty per cent of counties in which it is said a total of 17,000,000 people live. This condition was pointed to as a reason for the adoption of a gigantic federal system which would dominate doctors and patients alike in all areas embracing 130,000,000 people.

It is a bit strange that an author who passes as an authority on the medical needs of the nation would overlook the fact that federal money and administrative authority is already in existence for the correction of the condition in these poorer counties in so far as public health service is concerned.

No, the conditions in these poorer counties do not supply a reason for the adoption of an all-powerful federal agency in the field of medical service. On the con-

trary, they supply another and a very potent reason why such an all-powerful federal czar or agency, as is proposed in the Wagner-Murray-Dingell Bill, should never be created.

A simple modification of a policy already in existence would suffice to correct these conditions in so far as public health service is concerned.

MEETING OF THE TENNESSEE STATE MEDICAL ASSOCIATION

The Board of Trustees has announced a decision that a regular meeting of the State Society will be held in Nashville April 11, 12, 13, 1944.

The Noel Hotel has been engaged as headquarters.

DEATHS

DR. W. S. NASH

Dr. W. S. Nash, Knoxville: University of Michigan Medical School, Ann Arbor, 1889; aged seventy-eight; died Nov. 27, 1943.

DR. E. H. LOWE

Dr. E. H. Lowe, Maryville: University of Pittsburgh School of Medicine, 1902; aged seventy-three; died Nov. 8, 1943.

DR. H. D. HICKS

Dr. H. D. Hicks, Clinton: University of Louisville School of Medicine, 1900; aged sixty-seven; died suddenly Dec. 6, 1943.

NEWS FROM AND ABOUT TENNESSEE DOCTORS IN THE MILITARY SERVICE

C. M. Creech, captain, Medical Corps, 3201 Hardy Street, Hattiesburg, Mississippi, to Thayer General Hospital, Nashville 5, Tennessee.

Dr. Douglas Chamberlain, Station Hospital, Fort Benning, Georgia, to 48 General Hospital, Memphis, Tennessee.

We have received word of another Tennessean in the service. Dr. John C. Thornton, Jr., son of Dr. John C. Thornton, Brownsville, a graduate of Vanderbilt University, entered active service twenty months ago, after completing his internship in Michigan.

NEWS NOTES AND COMMENTS

The scientific exhibit at the Chicago Session of the American Medical Association, June 12 to 16, 1944, will be held at the Palmer House. Exhibits will cover all phases of medicine and the medical science with particular emphasis on graduate medical instruction for the physician in general practice.

Application blanks for space in the scientific exhibit are now available and may be obtained by communicating with the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

Dr. Ethel Walker announces the location of her office for the practice of pediatrics at 2509 West End Avenue, Nashville, Tennessee.

POSTGRADUATE COURSE IN SURGICAL DIAGNOSIS

Physicians in Tennessee will be gratified to learn that the course in surgical diagnosis has attained larger numbers up to date after eight months than any previous course. A great many physicians who have not come into the course in past years are taking an interest in this one. Medical officers in the army camps and posts near the teaching centers are taking a genuine interest in this course.

The following shows the result of the circuit by centers in West Tennessee:

Memphis	258	
Colored	26	—284
Dyersburg	42	
Union City	15	
Camp Tyson	33	
McKenzie	19	
Trenton	23	—416

The following gives the enrollment to date for the present circuit just opened in Nashville and vicinity:

Nashville	109
Gallatin	12
Springfield	9
Camp Campbell, Kentucky	29
Clarksville	14
Dickson	8—181

This circuit opened the week of November 29. The next circuit will include the teaching centers of Murfreesboro, McMinnville, Winchester, Shelbyville. Needless to say, Doctor Branch is giving an interesting course, and many physicians say at the close of the tenth session that they are sorry the course could not continue for another ten weeks. One small group of physicians summed up the efforts of Doctor Branch as follows in an informal discussion about his course at the close: "Doctor Branch is in reality giving his lifetime results of experience and study in surgery in a ten weeks' course to us."

—L. W. KIBLER, *Field Director.*

MEDICAL SOCIETIES

Davidson County:

November 17—"The Clinical Similarity of Certain Upper Abdominal and Cardiac Conditions," by Dr. W. R. Cate. Discussion by Drs. W. H. Witt and J. Owsley Manier.

December 1—"Continuous Caudal Analgesia in Obstetrics," by Drs. G. S. McClellan and Edwin L. Williams. Discussion by Dr. Milton Smith Lewis.

December 13—Members of the academy were invited to attend a dinner given by the doctors of the Army Air Classification Center.

December 15—Election of officers for 1944.

Dyer, Lake, and Crockett Counties:

A meeting of the society was held on November 3 with eighteen members present. The following papers were read:

"Treatment of Cancer of the Breast," by Dr. Charles H. Heacock, Memphis.

"Diagnosis of Hyperthyroidism," by Dr. William C. Chaney, Memphis.

"Surgical Discussion of Hyperthyroidism," by Dr. Ernest G. Kelly, Memphis.

The postgraduate surgical lectures were given to a good attendance locally. About fifteen officers attended regularly from the Dyersburg Air Base Hospital.

E. H. BAIRD, M.D.,
Acting Secretary.

Five-County Society:

A meeting of the Hardin, Lawrence, Lewis, Perry, and Wayne Counties Medical Society was held in Waynesboro, November 30, at the Hassell Hotel.

The following officers were elected:

Dr. V. H. Crowder, Lawrenceburg, President.

Dr. O. C. Doty, Savannah, Vice-President for Hardin County.

Dr. T. A. McAmis, Lawrenceburg, Vice-President for Lawrence County.

Dr. Jerome Powers, Hohenwald, Vice-President for Lewis County.

Dr. L. D. Murphy, Lobelville, Vice-President for Perry County.

Dr. W. W. Rippey, Collinwood, Vice-President for Wayne County.

Dr. O. H. Williams, Savannah, Secretary-Treasurer.

Dr. W. E. Boyce, Hohenwald, Delegate.

Dr. J. V. Hughes, Savannah, Alternate.

The Five-County Society goes on record opposing Senate Bill 1161 and any other legislation that tends to socialize the practice of medicine.

O. H. WILLIAMS, M.D., *Secretary.*

Hamilton County:

December 9 — "Chemotherapy in Eye, Ear, Nose, and Throat," by Dr. S. H. Long.

December 16—Dr. Cleo Chastain will present a paper.

December 23—Dr. John R. Martin is to be the essayist.

Knox County:

November 23—"Carcinoma of the Breast and Cervix," by Dr. Herbert Acuff. Discussion by Dr. C. L. Chumley.

December 7—"Lung Abscess," by Dr. David Waterman. Discussion by Drs. M. D. McCullough and Rufus Smith.

Robertson County:

The Robertson County Medical Society held its regular monthly meeting at the county hospital, Tuesday evening, Novem-

ber 30. After dinner, the meeting was called to order by President A. R. Kempf.

The society was happy to have with them at this meeting a member now in the service, Dr. W. P. Stone, who gave a very interesting talk on "March Fractures"—a fracture found in many of the soldiers.

Later the society held a general discussion of the Federal Maternity Bill. After a thorough investigation, it looked to be just one more effort to assist the Federal Bureau on their state medicine program.

The society unanimously voted to have no part with it.

The following officers were elected:

Dr. W. S. Rude, Ridgetop, President.

Dr. John Hawkins, Springfield, Vice-President.

Dr. John S. Freeman, Springfield, Secretary-Treasurer.

The next meeting will be held December 21, at which time Dr. A. R. Kempf will give his presidential address.

JOHN S. FREEMAN, M.D.,
Secretary.

Shelby County:

November 16—Case Report: "Pruritus Ani," by Dr. M. W. Holehan.

Paper: "Meckel's Diverticulum: Its Demonstration by Continuous Barium Stream," by Dr. W. W. Robinson. Discussion by Drs. R. F. Mason and C. H. Heacock.

"The Medical and Surgical Treatment of Peptic Ulcer," a sound and color film, from the Lahey Clinic. Presented by John Wyeth & Bro., Inc.

December 7—Case Reports: "Purpura Fulminans with Gangrene," by Dr. H. J. Jacobson.

"Paralysis from Chemical Poisoning," by Dr. E. D. Connell.

Papers: "Prostatism Associated with Certain Major Disabilities," by Dr. C. D. Allen. Discussion by Drs. R. O. Rychener and J. H. Francis.

"The Hypoplastic, or Aplastic, Anemias," by Dr. R. S. Pearce. Discussion by Drs. E. G. Campbell and L. W. Diggs.

Smith County:

Officers for 1944:

Dr. S. B. McFarland, Lebanon, President.

Dr. F. M. Blankenship, Hartsville, Vice-President.

Dr. Thayer S. Wilson, Gordonsville, Secretary-Treasurer.

Sullivan-Johnson Counties:

Dr. C. F. N. Schram was elected president and Dr. Jarrett E. Williams, secretary-treasurer of the Sullivan-Johnson County Medical Society at the group's monthly meeting at the Kingsport Inn Wednesday, December 1.

Other officers elected for 1944 were:

Dr. R. O. Glenn, Mountain City, Vice-President.

Dr. George W. Leavell, Bristol, Vice-President.

Dr. Harry Bachman, Bristol, Censor.

Dr. Julian Williams, Bristol, Member, Executive Committee.

OTHER MEDICAL SOCIETIES

At the last meeting of the Middle Tennessee Medical Association in Mt. Pleasant, a number of interesting papers were read to a large and appreciative audience. We have the promise of several of these papers for publication in the JOURNAL at an early date.

The meeting next spring will be held in Lawrenceburg.

Dr. Wm. D. Strayhorn, Nashville, was elected president; Dr. M. L. Connell, Wartrace, vice-president; Dr. Beverly Douglas, Nashville, re-elected secretary-treasurer.

ABSTRACTS OF CURRENT LITERATURE

OBSTETRICS

By MILTON SMITH LEWIS, M.D.
Bennie-Dillon Building, Nashville

Premature Separation of the Normally Implanted Placenta: A Study of Ninety-Three Cases. John A. O'Regan. American Journal of Obstetrics and Gynecology, Vol. 46, No. 4, 566-569.

The role played by premature separation of the placenta, with its gradual or explosive onset, with its clinical picture sometimes changing rapidly, and

the prognosis always doubtful is, by virtue of these factors, one of the most treacherous and at times the most tragic of obstetric complications.

From September, 1932, to January, 1942, at the New York Lying-In Hospital, there was a total of 32,434 deliveries, including the outdoor service. In this series there were ninety-three cases of premature separation of the placenta, an incidence of one in 348 cases. There were three maternal and forty-nine infant deaths.

It is generally agreed that patients with premature separation of the placenta are unquestionably better treated in a hospital, where they can be promptly typed and matched for transfusion and where blood is made available as soon as the necessity for it arises. Beyond this there is some disagreement as to just how these cases should be treated, particularly as to the method of delivery.

The "radical method" prescribes that all cases should be delivered by Caesarean section, the advantages being that there is a greater chance of obtaining a live baby; furthermore, the operator has a better opportunity to note the extent of the damage to the uterus and consequently is in an ideal position to remove the uterus should it fail to contract. On the other hand, the conservative school offers some excellent figures to bolster their contention that conservatism, as a rule, offers the best results as regards maternal mortality.

Solomons at the Rotunda Hospital in Dublin, 1933, reported a maternal mortality rate of only 3.5 per cent.

Irving, in 1937, reported a mortality of only 5.1 per cent. In the same paper he reported a mortality rate of fourteen per cent on cases of concealed hemorrhage delivered by Caesarean section. He stresses the point that if toxemia is present and the hemorrhage is concealed, the prognosis is much worse. This combination of factors in general is accepted to be true.

That progress has been made in the treatment of this serious obstetrical complication is evident when one compares some of the statistical reports published in the past twenty-five years with those of forty and seventy years ago. For example, Harrar in 1917 reported a mortality rate of 8.7 per cent; Solomons in 1933 of 3.5 per cent; Irving in 1937 of 5.1 per cent; whereas Holmes' report in 1901 was 32.2 per cent and Goodell in 1870 was 50.9 per cent in concealed hemorrhage cases.

As one contrasts the reported mortality rates of the older writers with those of the more recent ones, there are certain facts which become evident and explain in part why the results have been improved. Today most patients with premature separation of the placenta are hospitalized. The beneficial effects of blood and plasma transfusions are made readily available, a lifesaving measure which the earlier physicians could take advantage of as we do now. Caesarean section is employed more liberally in the severe cases before too much damage has been done to the uterus. We have learned to respect the cervix more and to discourage accouchement force. And in the final analysis, it was the heroic treatment in the earlier days of women with premature separation of the placenta, many of whom were in more or less severe shock to begin with, that was responsible for many deaths rather than the premature separation itself.

At the present time most clinics follow a "middle-of-the-road" course in treatment and are guided by their experience and the clinical picture of the case when it comes under their care. If the obstetrician elects to treat a patient conservatively, he may have to change to radical measures should a change in the clinical picture make it imperative that he do so.

In the conservative treatment the bag is dangerous, as it may convert the case into what practically amounts to a concealed hemorrhage. The use of some form of pressure binder, whether it be the windlass or the Beck type, is a valuable adjunct in the ante partum treatment of these cases.

Most fatal cases of premature separation of the placenta die post partum of hemorrhage and shock. An analysis of them frequently reveals that the operator temporized too long and was not in a position to do an immediate laparotomy. On this basis it seems logical that all cases of premature separation where vaginal delivery is contemplated and particularly where symptoms are severe, delivery is better effected in an operating room that has been set up for laparotomy, or in delivery room with operating facilities close by immediately available. This would eliminate time loss and blood loss should hysterectomy be necessary. It is evident that this procedure would reduce the maternal mortality rate and justify the means to attain it.

Manual Removal of the Placenta. L. D. Odell and W. F. Hovis. Surgery, Obstetrics, and Gynecology, Vol. 77, No. 5, 553-555.

Manual removal of the placenta has long been considered a serious obstetric operation. In fact, until recently the maternal mortality rate has been reported as high as 13.5 per cent.

In a total of 15,824 deliveries between July 1, 1926, and July 1, 1942, manual removal of the placenta was performed seventy times, an incidence of .44 per cent. Two maternal deaths (from hemorrhage) occurred in connection with the procedure (2.8 per cent). According to the standards of the American Committee on Maternal Welfare, forty-two per cent of the patients in the series were febrile, although only twenty-seven per cent were required to remain in the hospital longer than the accustomed eleven post-partum days. There were forty-seven liveborn (67 per cent) and twenty-three stillborn (32 per cent) infants, of which eight were previable (11 per cent).

Two major indications for manual removal of the placenta are commonly accepted, prolongation of the third stage of labor and excessive blood loss. Prolongation of the third stage prompted manual removal of the placenta in twenty-eight patients

whose blood loss was less than 600 cubic centimeters. Thirty-four operations were indicated because of excessive blood loss (over 600 cubic centimeters) without reference to duration of placental retention. It is of interest that the subsequent morbidity rate of each group was very similar (41 and 44 per cent), suggesting that intrauterine invasion rather than excessive blood loss was the principal factor in infection.

Abnormalities in previous confinements (28.6 per cent), especially previous manual removal of the placenta (11.4 per cent), and complications of the present pregnancy (28.5 per cent) were frequent. Prolonged labor (8.5 per cent), prolonged second stage of labor (17.4 per cent), and operative delivery (41.4 per cent) were three times more frequent than usual.

Treatment of retained placenta in the clinic generally follows these lines: In the absence of bleeding, at least two hours are allowed to elapse before manual removal is contemplated. During this time Credé expression under anesthesia and injection of the umbilical vein with saline (Mojon-Babaston technique) are frequently employed. If the rate of bleeding is alarming, or if the blood loss becomes excessive, manual removal is performed. If possible, the operation is accomplished upon a single invasion of the uterus and the placental bed is carefully palpated for remaining secundines before the hand is withdrawn. A hot, intrauterine douche is then employed.

It should be emphasized that it is difficult, because of variations, to define a blood loss at which interference becomes indicated. Six hundred cubic centimeters is widely accepted as the maximum of physiologic bleeding, but the accoucheur might be negligent in certain cases if he failed to perform the operation before this limit was reached. Similarly, he might be unduly radical in other patients if he interfered solely on this basis.

In this series the hot, intrauterine douche has contributed materially to promotion of efficient uterine contraction and thus to adequate hemostasis. Uterine tamponade has been necessary only once. In addition, we believe that the douche mechanically cleanses the uterine cavity of bacteria and blood clot which might act as a culture medium.

Shock from excessive blood loss is the greatest immediate danger and must be vigorously combated by all available means. Transfusion of blood may be lifesaving and is urgently indicated in patients whose blood loss is excessive. If blood is not available, intravenous infusion of plasma or saline solution may be employed. It should be stressed that acute secondary anemia is best treated by transfusion of blood, preferably before the classic signs of shock develop. Obviously, oxytocics should be administered to bleeding patients.

Serious puerperal infection represents a remote danger to the patient who has recovered from the immediate emergency which may attend manual removal of the placenta, but no patient in this series died of sepsis. It is the authors' opinion that prophylactic sulfonamide therapy is not justified because of the relatively benign character of the infection. When puerperal sepsis occurred (44.4 per cent), the sulfa drugs were rarely indicated. They were employed only four times; in two patients who had B hemolytic streptococci and in two others before culture indications were recognized.

There has been a progressive decrease in mortality rates in the operation of manual removal of the placenta during the past few decades without a corresponding decrease in the frequency with which it is performed. The increasing use of transfusions and oxytocics, as well as more prompt interference, have undoubtedly contributed to this result.

Antecedent hemorrhage or infection greatly increases the danger of manual removal of the placenta. Eastman recommended that manual removal be performed before the blood loss reaches 500 cubic centimeters, while Zangemeister reported a high maternal mortality rate (18 per cent) following the operation in patients with amniotic sac infection. Procrastination during excessive bleeding is probably as radical and hazardous as interference in the presence of intrauterine infection. Two maternal deaths occurred in this series.

The experience at the University Hospital indicates that:

1. Manual removal of the placenta does not carry the risk of infection which is usually assigned to it.

2. Failure to perform the operation in the presence of severe or continuous bleeding, or both, evidently creates a greater risk from hematogenic shock.

OPHTHALMOLOGY

By Robert J. Warner, M.D.
Doctors Building, Nashville

Membranous Inflammation of Oropharynx, Nose, and Conjunctiva Due to Sulphathiazole Administration. I. M. Schnee. Archives of Ophthalmology, October, 1943.

The following case is reported as evidence of an unusual type of toxic reaction from therapy with a sulfonamide compound. The reaction consisted in inflammation involving the conjunctiva, nose, pharynx, mouth, and larynx, with the development of a membrane. There was rapid recovery on discontinuance of the chemotherapy.

The patient, a soldier twenty-eight years of age, had been treated with sulfathiazole (2- (para-aminobenzenesulfonamido) thiazole) for an infection of the upper respiratory tract. After he had received about eighteen grams, the symptoms seemed to be relieved and treatment was stopped. On the fifth day of chemotherapy the eyes became inflamed and a discharge was present; then the mouth became very sore and the lips cracked. The fever recurred, and the patient was sent to the

hospital. The lids were swollen with a smooth, thick, well-formed gray membrane which left no bleeding surface when peeled off, but reformed within a few hours. The cornea was not involved. A similar condition was found in the mouth and throat. Smears and cultures were negative except for staphylococci. On the patient's relapse, sulfathiazole treatment was renewed. When the condition of the eyes and throat became worse, at the suggestion of Lieutenant Colonel Derrick T. Vail, use of the drug was discontinued. The patient rapidly became well.

ROENTGENOLOGY

By J. Marsh Frere, M.D.
Newell and Newell Sanitarium, Chattanooga

The Value of Roentgen Therapy in Carcinomatous Metastases to Bone. Edward C. Koenig, M.D., and Gordon J. Culver, M.D., Buffalo General Hospital, Buffalo, New York. The American Journal of Roentgenology and Radium Therapy, July, 1943, Vol. 41, No. 1, p. 38.

The authors have brought a timely subject to our attention in discussing the treatment of metastatic cancer. They state that failure to administer roentgen therapy to malignant bone metastases is usually due to lack of enthusiasm on the part of the surgeon who has the case or the clinician who originally had it.

Metastases to bone are, of course, most commonly seen in carcinoma of the breast, carcinoma of the prostate, carcinoma of the thyroid, and in hypernephroma. Undoubtedly, the most frequent metastatic tumor with which we deal is that from primary carcinoma of the breast.

Borak has classified the symptoms produced by metastatic bone tumors in two groups: first, those which involve the bone alone and produce pain which is entirely bony in origin; second, those which either involve the paraskeletal lymphatics and produce pressure on adjacent nerves or involve the bone itself in such a manner that pressure on the nerves may occur. This second group produces a neuralgic type of pain which is variable in distribution, depending on the nerve involved and on the degree of involvement.

They suggest that it is wise as a routine to make roentgen studies of at least the lower spine and pelvis in patients who have had malignant lesions which commonly metastasize to bone. This is particularly true in cases of carcinomia of the breast, which most commonly produces metastases in these areas of the skeletal system.

They comment further as follows: "It may be well to mention at this time the lack of correlation between the patient's symptoms and general condition and the roentgen findings. This lack of correlation exists both preceding and following roentgen therapy. We cannot, therefore, use the roentgen findings as a measuring stick for the amount or duration of treatment, but rather must be guided by the patient's condition. Each case is an individual problem and must be treated as such. It has been noted that patients who have metastatic bone lesions commonly do not exhibit the general debility often associated with malignant growth. This is extremely fortunate, as it allows us to deliver much higher doses of roentgen rays than we could if we were dealing with a patient in poor general condition. It seems logical, therefore, to separate patients with metastatic bone lesions into two groups. In the first group we can place those in whom the predominant feature is pain due to the metastatic lesions themselves; in the second, those in whom there are associated debility and cachexia and other symptoms of neoplastic disease. The first is the ideal group for roentgen therapy. The value of therapy in the second group is doubtful, since in delivering sufficient dosage for relief of pain we are apt to depress an already debilitated patient to such a degree as to hasten his death; at least rather than increasing the comfort of such a patient, we add to his already existing misery."

Summary

"Thus from therapy we may expect regression of the lesion itself, alleviation of the painful symptoms, improvement in the general condition, and prolongation of life. This is what we mean when we speak of control of the disease process. If we can return a patient to normal life for even a few months, we must feel that therapy has been of definite value. Certainly it is far superior to controlling pain with morphine, confining the patient to bed, and merely waiting for death to occur. From the standpoint of the patient's own welfare, his family, and society, roentgen therapy offers the most satisfactory method of treating metastatic bone lesions, and the results obtained certainly justify its continuation."

UROLOGY

By Tom R. Barry, M.D., F.A.C.S.
By G. A. Williamson, Jr., M.D.
307 Doctors Building, Knoxville

Treatment of Burns of the External Genitalia. Alvin C. Drummond. Journal of Urology, October, 1943.

Poor results could be avoided if the physician understood that the usual treatments of burns used on other areas of the body are not suitable for burns of the external genitalia. When applied to burns in this area, tannic acid preparations lead to increased edema and compression of the circulation. Burns in this region, also, do poorly under wet saline dressings because of the maceration of the tissue.

Because of the increased fuel oil, burning machinery, burning ships, incendiary bombs, etc., burns of the genitalia will, doubtless, increase during the war. Burns in this region are more liable to infection than those of the flat surfaces

of the body; consequently, they should be treated as large open wounds.

It is almost impossible to determine the depth of burns of the scrotum and penis until some period of time has elapsed. The resulting edema may be extensive and violent. In cases of marked edema of the foreskin or meatus, urination may be obstructed and catheterization may be difficult. Obstruction of the lymphatics of the scrotum and penis from extensive edema leads to further edema, circulatory obstruction, possible sloughing, and serious infection. Constant hygiene and dryness in burns of this region are important and cannot be overstressed.

The following method of treatment is outlined:

1. Adequate doses of morphine are given as soon as possible.
2. The usual therapy to combat shock is given.
3. Severe burn cases are admitted to small rooms to avoid air-borne infections.
4. Clothing is removed or cut away.
5. The patient is transferred to a bed covered with a sterile sheet.
6. Blood pressure is taken, and blood is withdrawn for hematocrit, plasma protein tests, etc.
7. A thorough debridement is done. Dirt is removed with saline solution, grease is removed with ether soap. This may be done under rectal avertin anesthesia if necessary.
8. Sterile vaseline gauze or sulfonamide ointment gauze is applied as a pressure dressing.
9. A light cradle is used with sterile sheets. The cradle temperature should not be kept above eighty-five degrees Fahrenheit.
10. Combined tetanus and B welchii antitoxin is administered.
11. Whole blood transfusions or frequent blood plasma transfusions are given as indicated.
12. Subsequent dressings should be kept at a minimum.

One case was reported in this article.

Send It to

LILY WHITE LAUNDRY

6-3118

Income Tax Reporting is EASY with the...

DAILY LOG



The Daily Log keeps complete records of income and expense. Because it's tailored to a physician's needs, it can save you *hours* of precious time. No special bookkeeping training required . . . used by thousands of physicians year after year. Fully recommended by medical authorities. Examine a copy yourself . . . $6.00 complete . . . *satisfaction guaranteed.* Or send for free literature . . .

COLWELL PUBLISHING CO., 233 University Ave., Champaign, Ill.

ANTHONY'S MILK

● Grade "A" Pasteurized ● Homogenized ● Soft Curd ● Vitamin "D"

With 400 U.S.P. Vitamin D Units (Activated Ergosterol) Added Per Quart Under A.R.P.I. Process

LIST OF OFFICERS OF THE TENNESSEE STATE MEDICAL ASSOCIATION

President—Dr. O. N. Bryan, 2122 West End Avenue, Nashville.
President-Elect—Dr. Kyle C. Copenhaver, Medical Arts Building, Knoxville.
Vice-President for West Tennessee—Dr. J. W. Oursler, Humboldt.
Vice-President for Middle Tennessee—Dr. Burnett W. Wright, Nashville.
Vice-President for East Tennessee—Dr. J. C. Brooks, Chattanooga.
Secretary-Editor—Dr. H. H. Shoulders.
Assistant Secretary-Editor—Dr. W. M. Hardy.

TRUSTEES

Chairman and Treasurer—Dr. C. M. Hamilton, Doctors Building, Nashville (1946).
Dr. E. R. Zemp, Walnut Street, Knoxville.
Dr. B. L. Jacobs, Provident Building, Chattanooga (1946).
Dr. W. C. Chaney, 20 South Dunlap Street, Memphis (1945).
Dr. J. B. Stanford, 899 Madison Avenue, Memphis.

COUNCILORS

First District—Dr. L. E. Dyer, Greeneville.
Second District—Dr. S. R. Miller, Knoxville.
Third District—Dr. A. M. Patterson, Chattanooga.
Fourth District—Dr. J. T. Moore, Algood.
Fifth District—Dr. V. S. Campbell, Murfreesboro.
Sixth District—Dr. H. S. Shoulders, Nashville.
Seventh District—Dr. C. D. Walton, Mt. Pleasant.
Eighth District—Dr. Jere L. Crook, Jackson.
Ninth District—Dr. E. H. Baird, Dyersburg.
Tenth District—Dr. W. B. Burns, Memphis.
Speaker of the House of Delegates—Dr. E. R. Zemp, Knoxville.
Delegates to the American Medical Association—
Dr. E. G. Wood, Knoxville; East Tennessee (1945).
Dr. H. B. Everett, Memphis; West Tennessee (1946).
Alternates—
Dr. E. T. Newell, Chattanooga; East Tennessee (1945).
Dr. E. C. Ellett, Memphis; West Tennesse (1946).

OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Vice-President	Secretary
Anderson-Campbell	H. C. Chance, Cumberland Gap	J. P. Lindsay, La Follette	J. S. Hall, Clinton
Bedford	M. L. Connell, Wartrace	H. A. Morgan, Lewisburg	J. T. Gordon, Lewisburg
Blount	C. B. LeQuire, Maryville	Lea Calloway, Maryville	G. W. Burchfield, Maryville
Bradley		C. S. Heron, Charleston	H. J. McAlister, Cleveland
Carroll	F. C. Carnell, Trezevant	C. T. Cox, Westport	R. B. Wilson, Clarksburg
Cocke	Fred M. Valentine, Newport		J. E. Hampton, Newport
Cumberland	W. S. Dooley, Crossville		V. L. Lewis, Crossville
Davidson	H. L. Douglass, Nashville	J. C. Overall, Nashville	H. E. Paty, Nashville
Dickson	Hartwell Weaver, Dickson	H. P. Spencer, White Bluff	W. J. Sugg, Dickson
Dyer, Lake, & Crockett	J. G. Price, Dyersburg	C. A. Turner, Dyersburg (Dyer) R. W. Griffin, Tiptonville (Lake) W. H. Stallings, Friendship (Crockett)	J. B. Cochran, Dyersburg
Fayette-Hardeman	R. L. Cobb, Bolivar	W. D. Martin, Nashville	E. L. Baker, Western State Hospital
Fentress	C. A. Collins, Wilder		J. Peery Sloan, Jamestown
Franklin	A. P. Smith, Winchester	Carter Moore, Winchester	J. P. Moon, Winchester
Gibson	W. C. McRee, Trenton	T. V. Banks, Trenton	F. Douglass, Dyer
Giles	L. A. Edmundson, Bethel	D. W. Cowgill, Pulaski	W. K. Owen, Pulaski
Greene	L. E. Coolidge, Greeneville	W. T. Mathes, Greeneville	J. E. Kite, Jr., Bulls Gap
Grundy	U. B. Bowden, Pelham	O. H. Clements, Palmer	T. F. Taylor, Monteagle
Hamblen	W. E. Howell, Morristown	B. C. Weesner, Morristown	Y. A. Jackson, Morristown
Hamilton	J. B. Swafford, Chattanooga	J. Marsh Frere, Chattanooga	Jesse J. Armstrong, Chattanooga
Hardin, Lawrence, Lewis, Perry, Wayne	W. E. Boyce, Flatwoods	J. V. Hughes, Savannah (Hardin) J. W. Danley, Lawrenceburg (Lawrence) Jerome Powers, Hohenwald (Lewis) O. A. Kirk, Linden (Perry) J. T. Keeton, Clifton (Wayne)	O. H. Williams, Savannah
Haywood	John C. Thornton, Brownsville	F. P. Hess, Bells	Roy M. Lanier, Brownsville
Henry	George D. Boone, Paris	Henriette Veltman, Paris	R. Graham Fish, Paris
Hickman			W. K. Edwards, Centerville
Humphreys			H. C. Capps, Waverly
Jackson	R. C. Gaw, Gainesboro	L. R. Anderson, Gainesboro	E. W. Draper, Gainesboro
Knox	H. J. Bolin, Mascot	Dan R. Thomas, Knoxville	R. B. Wood, Knoxville
Lauderdale	J. R. Lewis, Ripley		Jas. L. Dunavant, Ripley
Lincoln	T. A. Patrick, Fayetteville	J. E. Sloan, Boonshill	W. S Joplin, Petersburg
Loudon	J. R. Watkins, Loudon		W. B. Harrison, Loudon
Macon	D. D. Howser, Lafayette		J. Y. Freeman, Lafayette
Madison		Hermon Hawkins, Jackson W. C. Ramer, Lexington	S. M. Herron, Jackson
Maury		O. J. Porter, Columbia	D. B. Andrews, Columbia
McMinn	W. E. Foree, Athens	D. F. Seay, Englewood	Roy W. Epperson, Athens
Monroe	H. C. Shearer, Madisonville	B. W. Bagwell, Madisonville	R. C. Kimbrough, Madisonville
Montgomery	H. H. Edmondson, Clarksville	Jack Ross, Clarksville	B. H. Webster, Clarksville
Obion	M. T. Tipton, Union City		M. A. Blanton, Jr., Union City
Overton	W M. Breeding, Livingston		A. B Qualls, Livingston
Polk	H. P. Hyde, Copperhill	C. W. Strauss, Copperhill	F. O. Geisler, Isabella
Putnam	W. A. Howard, Cookeville	T. M. Crain, Monterey	Thurman Shipley, Cookeville
Roane	R. F. Regester, Rockwood		W. W. Hill, Harriman
Robertson	A. R. Kempf, Springfield	W. S. Rude, Ridgetop	John S. Freeman, Springfield
Rutherford	Lois Kennedy, Murfreesboro	W. M. Bevis, Murfreesboro	J. A. Scott, Murfreesboro
Scott	D. T. Chambers, Norma	M. F. Frazier, New River	Milford Thompson, Oneida
Sevier			R. J. Ingle, Sevierville
Shelby	W. L. Rucks, Memphis E. G. Kelly, Memphis, President-Elect	B. F. Hardin, Memphis	A. F. Cooper, Memphis C. V. Croswell, Memphis, Treasurer
Smith	John J. Beasley, Pleasant Shade	Rhea E. Garrett, Dixon Springs	Thayer S. Wilson, Gordonsville
Sullivan-Johnson	D. D. Vance, Bristol	C. F. N. Schram, Kingsport (Sullivan) H. S. Smythe, Mountain City (Johnson)	G. W. Leavell, Bristol
Sumner			W. M. Dedman, Gallatin
Tipton	S. Hurt, Covington		H. S. Rule, Covington
Washington, Carter, and Unicoi	J. R. Moody, Erwin	U. G. Jones, Johnson City W. G. Frost, Elizabethton	E. A. Lodge, Johnson City
Weakley	R. W. Brandon, Sr., Martin	M. D. Ingram, Dresden	
White	J. C. Blankenship, Sparta	A. A. Bradley, Cookeville, RFD 58	B. L. Upchurch, Sparta, Executive Secretary
Williamson	W. B. Farris, Franklin	B. T. Nolen, Franklin	H. C. Stewart, Franklin
Wilson	J. R. Doak, Watertown	Frank B. Dunklin, Lebanon	J. L. Ames, Gladeville

STANDING COMMITTEES

COMMITTEE ON POSTGRADUATE INSTRUCTION IN SURGICAL DIAGNOSIS

Dr. J. L. McGehee, Chairman, Memphis
Dr. W. L. Williamson, Memphis
Dr. L. W. Edwards, Nashville
Dr. E. G. Wood, Knoxville
Dr. A. M. Patterson, Chattanooga
Dr. J. O. Manier, Nashville

COMMITTEE ON SCIENTIFIC WORK

Dr. H. H. Shoulders, Chairman, Nashville
Dr. Ralph H. Monger, Knoxville (1945)
Dr. A. F. Cooper, Memphis (1944)
Dr. Cecil E. Newell, Chattanooga (1946)

STATE TUBERCULOSIS COMMITTEE

Dr. W. S. Rude, Chairman, Ridgetop (1944)
Dr. C. M. Oberschmidt, Memphis (1945)
Dr. E. A. Gilbert, Chattanooga (1944)
Dr. R. R. Crowe, Nashville (1946)

STATE HOSPITAL COMMITTEE

Dr. E. G. Wood, Chairman, Knoxville (1944)
Dr. E. H. Baird, Dyersburg (1945)
Dr. Lee K. Gibson, Johnson City (1945)
Dr. R. R. Brown, Nashville (1944)
Dr. J. H. Francis, Memphis (1946)
Dr. John B. Steele, Chattanooga (1946)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. N. S. Shofner, Chairman, Nashville (1944)
Dr. M. S. Roberts, Knoxville (1945)
Dr. H. B. Everett, Memphis (1944)
Dr. John B. Steele, Chattanooga (1946)
Dr. T. R. Ray, Shelbyville (1946)
Dr. H. H. Shoulders, *ex officio*, Nashville
Dr. O. N. Bryan, *ex officio*, Nashville

LIAISON COMMITTEE

Dr. L. W. Edwards, Chairman, Nashville (1946)
Dr. J. O. Manier, Nashville (1948)
Dr. Walker L. Rucks, Memphis (1947)
Dr. B. L. Jacobs, Chattanooga (1944)
Dr. W. P. Wood, Knoxville (1945)

INSURANCE COMMITTEE

Dr. A. F. Cooper, Chairman, Memphis (1944)
Dr. C. M. Hamilton, Nashville (1945)
Dr. Kyle Copenhaver, Knoxville (1946)

COMMITTEE ON MEDICAL EDUCATION

Dr. J. Marsh Frere, Chairman, Chattanooga (1946)
Dr. John M. Lee, Nashville (1945)
Dr. W. C. Chaney, Memphis (1945)
Dr. R. B. Wood, Knoxville (1944)
Dr. C. H. Sanford, Memphis (1944)
Dr. D. W. Smith, Nashville (1946)

COMMITTEE ON MEMOIRS

Dr. James O. Walker, Chairman, Franklin (1945)
Dr. D. W. Hailey, Nashville (1944)
Dr. W. E. Bryan, Chattanooga (1944)
Dr. J. L. Crook, Jackson (1946)
Dr. J. L. Hankins, Johnson City (1946)

COMMITTEE ON MATERNAL WELFARE

Dr. J. R. Reinberger, Chairman, Memphis (1944)
Dr. D. T. Holland, Newbern (1945)
Dr. J. E. Powers, Jackson (1945)
Dr. John S. Cayce, Nashville (1944)
Dr. J. B. Fitts, Chattanooga (1944)
Dr. M. L. Hefley, Knoxville (1946)
Dr. C. W. Friberg, Johnson City (1946)

COMMITTEE ON CHILD WELFARE

Dr. James C. Overall, Chairman, Nashville (1944)
Dr. Wm. E. Van Order, Chattanooga (1945)
Dr. W. D. Mims, Memphis (1945)
Dr. W. R. Cross, Knoxville (1946)

COMMITTEE ON CANCER

Dr. C. H. Heacock, Chairman, Memphis (1944)
Dr. Ralph H. Monger, Knoxville (1946)
Dr. H. S. Shoulders, Nashville (1945)
Dr. W. Likely Simpson, Memphis (1945)
Dr. Stanton S. Marchbanks, Chattanooga (1944)
Dr. Howard King, Nashville (1946)

COMMITTEE ON PHYSICAL THERAPY

Dr. J. J. Ashby, Chairman, Nashville (1944)
Dr. C. R. Thomas, Chattanooga (1944)
Dr. J. F. Hamilton, Memphis (1945)
Dr. C. H. Sanford, Memphis (1946)
Dr. George Inge, Knoxville (1946)

COMMITTEE ON INDUSTRIAL HYGIENE

Dr. Cecil E. Newell, Chairman, Chattanooga (1944)
Dr. C. F. N. Schram, Kingsport (1945)
Dr. A. R. McMahan, Memphis (1945)
Dr. Carrington Harrison, Nashville (1946)

COMMITTEE ON FRACTURES

Dr. Duncan Eve, Chairman, Nashville (1944)
Dr. E. T. Newell, Chattanooga (1945)
Dr. Edwin J. Lipscomb, Memphis (1945)
Dr. Robert F. Patterson, Knoxville (1946)

COMMITTEE ON PREPAYMENT PLANS FOR MEDICAL AND HOSPITAL SERVICES

Dr. J. O. Manier, Chairman, Nashville
Dr. R. R. Brown, Nashville
Dr. J. C. Brooks, Chattanooga
Dr. M. S. Roberts, Knoxville
Dr. A. R. Porter, Jr., Memphis
Dr. W. D. Stinson, Memphis

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

Dr. Jesse C. Hill, Chairman, Knoxville
Dr. R. R. Brown, Nashville
Dr. Robert S. Pearce, Memphis

OFFICERS OF SECTIONS

Tennessee State Pediatic Society—
President—Dr. Frazier Binns, Nashville*
Vice-President—Dr. O. L. Von Canon, Chattanooga*
Secretary—Dr. Gilbert Eblen, Knoxville*

Tennessee Academy of Ophthalmology and Otolaryngology—
President—Dr. T. Lyles Davis, Chattanooga
Vice-President—Dr. Wm. A. Garrott, Cleveland*
Secretary—Dr. S. H. Sanders, Memphis

Tennessee Radiological Society—
President—Dr. Horace D. Gray, Memphis*
Vice-President—Dr. Franklin B. Bogart, Chattanooga*
Secretary-Treasurer—Dr. J. Marsh Frere, Chattanooga

*In service.

1943 MEMBERS OF TENNESSEE STATE MEDICAL ASSOCIATION

The list of members of the Tennessee State Medical Association is published in compliance with a provision of the constitution and by-laws. The data are accurate as of December 10, 1943. They are arranged in the following order:

List of active members.

Counties arranged alphabetically.

Towns in each county arranged alphabetically and the members in each town arranged alphabetically.

List of members residing outside the state arranged alphabetically.

List of veteran members.

List of members who have died in the year 1943.

A dagger (†) in front of a name indicates military service at present.

ANDERSON COUNTY

Briceville
†P. M. Dings

Clinton
O. E. Ballou
A. J. Butler
J. S. Hall

Fork Mountain
A. A. Baird
†A. K. Morris

Lake City
J. M. Cox
T. O. Huff
†Geo. M. Kelley
Paul S. Williams

Norris
A. W. Bishop

BEDFORD COUNTY

Shelbyville
W. H. Avery
James N. Burch
B. L. Burdett
Vernon K. Earthman
Alfred Farrar
H. A. Morgan, Jr.
T. R. Ray

Wartrace
M. L. Connell
†H. J. Shull

BENTON COUNTY

Camden
J. Mansfield Bailey (Mbr. Carroll Co.)
A. T. Hicks (Mbr. Carroll Co.)

BLEDSOE COUNTY

Pikeville
Thos. G. Cranwell

BLOUNT COUNTY

Greenback
Joe Hall

Maryville
K. A. Bryant
Geo. W Burchfield
Henry A. Callaway
Lea Callaway
C. F. Crowder
W. C. Crowder
W. N. Dawson
J. E. Hall
†R. H. Haralson
Beulah Kittrell
C. B. Lequire
G. D. Lequire
W. B. Lovingood
J. M. McCulloch
J. F. Manning
Murlin Nester
Lester C. Olin
J. M. Ousley
B. P. Ramsey
†Lowell Vinsant

Townsend
E. W Griffin

Walland
J. M. Waters

BRADLEY COUNTY

Charleston
C. S. Herron

Cleveland
†D. N. Arnold
W. B. Campbell
E. R. Ferguson
†Wm. A. Garrott
H. J. McAlister
J. L. McClary
W. C. Stanberry
S. J. Sullivan
W. H. Sullivan
†Claude H. Taylor
†Madison S. Trewhitt

CAMPBELL COUNTY

Block
Chas. Rogers

Caryville
R. L. Gallaher

Clinchmore (Caryville P. O.)
R. C. Pryse

Elk Valley
R. B. Scott

Jacksboro
S. D. Queener

Jellico
C. E. Ausmus
Geo. B. Brown
J. L. Heffernan
Ned C. Watts

La Follotte
M. L. Davis
J. P. Lindsey
J. W. Presley

Pruden
†E. A. McEver

Westbourne
P. J. O'Brien

CANNON COUNTY

Auburntown
†R. C. Van Hook (Mbr. Rutherford Co.)

Woodbury
J. F. Adams (Mbr. Rutherford Co.)

CARROLL COUNTY

Bruceton
R. T. Keeton
L. E. Trevathan

Clarksburg
R. B. Wilson

Huntingdon
R. A. Douglass
V. E. Massey
W. A Walcott

Trezevant
F. C. Carnell

Westport
C. T. Cox

CARTER COUNTY

Elizabethton
C. B. Baughman
E. L. Caudill
†H. B. Damron
†W. W. Evans
W. G. Frost
Chester A. Hicks
E. T. Pearson
J. B. Sboun
†J. B. Warren

CHEATHAM COUNTY

Ashland City
P. L. Pitt (Mbr. Robertson Co.)

Thomasville
J. M. Harris

CHESTER COUNTY

Henderson
W. O. Baird
H. T. Pitts
Hunter M. Steadman
L. C. Smith
J. B. Stephens

CLAIBORNE COUNTY

Cumberland Gap
Hugh C. Chance (Mbr. Anderson-Campbell Co.)

Tazewell
Benj. M. Chambers (Mbr. Sullivan & Johnson Co.)

New Tazewell
H. C. Evans (Mbr. Knox Co.)
George L. Rea (Mbr. Knox Co.)

CLAY COUNTY

Celina
Louis Buell

COCKE COUNTY

Newport
M. S. Doak
J. E. Hampton
W. E. McGaha
Drew A. Mims
L. S. Nease
†W. C. Ruble, Jr.
Fred M. Valentine

COFFEE COUNTY

Manchester
Howard A. Farrar (Mbr. Rutherford Co.)
J. B. Farrar (Mbr. Rutherford Co.)

Tullahoma
Jack T. Farrar (Mbr. Bedford Co.)
J. M. King (Mbr. Bedford Co.)

CROCKETT COUNTY

Alamo
E. O. Prather, Jr.

Bells
E. Farrow (Mbr. Madison Co.)
F. P. Hess (Mbr. Haywood Co.)
S. E. McDonald (Mbr. Madison Co.)

Friendship
W. H. Stallings

Maury City
M. E. O'Neil

CUMBERLAND COUNTY

Crab Orchard
F. A. Niles

Crossville
W. S. Dooley
†Price H. Duff
H. F. Lawson
V. L. Lewis
E. W. Mitchell

Pleasant Hill
Asa Z Hall
M. K. Stewart
May Wharton

DAVIDSON COUNTY

Donelson
E. E. Anderson
Maurice Davis
T. R Gull

Goodlettsville
S. J. Fentress

Madison
George A. Droll
†David F. Johnson
Cyrus Eve Kendall
R. Z. Linney
E. A. Sutherland
Joe E. Sutherland

Nashville
J. W. Alford, Jr.
James T. Allen
C. F. Anderson
†Joe D. Anderson
†J. P. Anderson
J. Sumpter Anderson
†John W. Anderson
W. B. Anderson
J. J. Ashby
Sidney W. Ballard
Hugh Barr
R. A. Barr
E. H Barksdale
David S. Bayer
Lynch Bennett
W. C. Bibro
R. W. Billington
†Frazier Binns
Chas. W. Black (Mbr. Knox Co.)
John M. Boylin (Mbr. Sullivan-Johnson Co. Soc.)
H. B. Brackin
G. Hearn Bradley
T. F. Bridges
Emmett E. Brown
M. F. Brown (Mbr. Lincoln Co.)
Murray C. Brown
Root. R. Brown
Barney Brooks
Clinton E. Brush
J. L. Bryan
O. N. Bryan
†R. N. Buchanan, Jr.
†Frank Buckner
Ray C. Bunch
†John C. Burch
L. E. Burch
†Roger B. Burrus
B. F. Byrd
†B. F. Byrd, Jr.
Jere W. Caldwell
Lucien J. Caldwell
Will Camp
†Henry M. Carney
†Geo. K. Carpenter
Randolph Cate
W. R. Cate
John S. Cayce
†Lee F. Cayce
†J. M. Chambliss
W. J. Core
Sam C. Cowan
†Sam C. Cowan, Jr.
R. R. Crowe
†Richard R. Crutcher
Carl R. Crutchfield
M. M. Cullom
J. W. T. Dabbs
Rollin A. Daniel, Jr.
†Marion I. Davis
Murray B. Davis
T. W. Davis
Wm. A. Demonbreun
R. C. Derivaux
Paul DeWitt
W. C. Dixon
Katherine Dodd
Beverly Douglas
H. L. Douglas
Bate Dozier
†R. L. Dozier, Jr.
R. S. Duke
†John J. Eberhart
L. W. Edwards
†Phillip C. Elliott
†Frank F. Ellis, Jr.
A. L. Erwin
Duncan Eve, Jr.
Walter O. Faught
†Joe W. Fenn
W. F. Fessey
†R. O. Fessey
†Garth E. Fort
Herbert C. Francis
J. J. Frey
†Thos. Fern Frist
J. L. Fuqua
Joseph F. Gallagher
†Root. K Galloway
Chas. K. Gardner
†J. C. Gardner
†Dan C. Gary
†Hamilton V. Gayden
Horace C. Gayden
†L. R. Gayden
†H. L. Gilland
E. W. Goodpasture
R. W. Grizzard
†Thos. Grizzard
H. Claude Guerin
†Kenneth L. Haile
David W. Hailey
C. M. Hamilton
Geo. H. Harding
W. M. Hardy
William Palmer Hardy
O. W. Harris
Carrington Harrison
E. F. Harrison (Mbr. Williamson Co. Soc.)
†Geo. A. Hatcher
O. S. Hauk
†Jas. T. Hayes
R. N. Herbert
J. B. Hibbitts, Jr.
†I. R. Hillard
J. Harvill Hite
G. W. Holcomb
A. N. Hollabaugh, Jr.
†Chas. F. Hollabaugh
†Geo. B. Hubbard
W. W. Hubbard
H. H. Hudson (Mbr. Knox Co.)
Vernon Hutton
†Daniel J. Johns, Jr.
†Ogle Jones
Hollis E. Johnson
†Geo. S. Johnson
Edgar Jones
†Harry D. Jones
T. M. Jordan
R. H. Kampmeier
A. E. Keller
J. P. Keller
†Allen Kennedy
W. G. Kennon
Howard King
†J. A. Kirtley, Jr.
R. K. Landis
Leon M. Lamer
Ralph M. Larsen
W. P. Law
W. S. Leathers
John M. Lee
†W. Jerome Lee
John J. Lentz
Norris C. Leonard
Jas. D Lester
Milton S. Lewis
Walter M. Lott
L. S. Love
†J. A. Loveless
†Jackson P. Lowe
†S. L. Lowenstein
Frank H. Luton
†Root. H. Magruder
†C. G. de Gutierrez-Mahoney
Guy Milford Maness
J. Owsley Manier
†Travis H. Martin
W. M. McCabe
G. S. McClellan
C. C. McClure
Thos. D. McKinney
†Jas. R. McMillon
C. S. McMurray
†J. G. Mead
†Cleo M. Miller
†Theodore Morford
Walter M. Morgan
†Hugh J. Morgan
†N. B. Morris
†S. R. Mortland
P. G. Morrissey
†P. G. Morrissey, Jr.
†M. K. Moulder
D. L. Mumpower
D. R. Neil
Oscar G. Nelson
O. A. Oliver
†John R. Olson
Eugene Orr
Wm. F. Orr, Jr.
James C. Overall
†Fred W. T Overton
John Overton
†Wm. M. Palm
H. E. Paty
†Robert C. Patterson
†E. White Patton
Edna S. Pennington
J. C. Pennington
Cobb Pilcher
Bruce P'Pool
T. G. Pollard
Jas. M. Pomeroy
J. J. Post
Paul E. Purks
James Seay Read
E. M. Regen
W. E. Reynolds
†S. B. D. Rhea
H. P. Rieger
John B. Riggsbee
†Elkin L. Rippy
S. S. Riven
E. L. Roberts
†Miller Robinson
Robert E. Rock
S. T Ross
B. T Rucks
†A. F. Russell
Harry Sauberli
†J H. Sayers
George F Seeman
†Ewing Seligman
†Maurice Seligman
D. C. Seward
Trimble Sharber
N. S Shofner
H. H. Shoulders
H. S. Shoulders
Ammie T. Sikes
T. E. Simpkins
†Melvin M. Simmons
D. W. Smith
†Henry C. Smith
Herman Spitz
†Joe M. Strayhorn
W. D. Strayhorn
Robt. E. Sullivan
†W. Albert Sullivan
W. D. Sumpter
†Arthur J. Sutherland
S. R. Teachout
Pauline Tenzel
A. B. Thach, Sr.
†A. B. Thach, Jr.
Milton Tharp
C. S. Thomas
H. M. Tigert
†W. Oakes Tirrill, Jr.
†C. C. Trabue
†Harold M. Truebger
C. B. Tucker
Harlin G. Tucker
Edward L. Turner
Wm. O. Vaughan
Ethel Walker
†Paul L. Warner
R. J Warner
T. Bruce Weaver
†Thos. S. Weaver
B. H. Webster (Mbr. Montgomery Co. Soc.)

†Military Serviee

Chas H. Webb
(Mbr. Madison Co. Soc.)
Albert Weinstein
†Bernard Weinstein
†A. L. White
†J. T. Whitfield
T. A. Whitfield
P. B. Widdis
W. W. Wilkerson, Jr.
†Claiborne Williams
W. C. Williams
†Herbert Wilson, Jr.
Jack Witherspoon
W. H. Witt
Burnett Wright
R. E. Wyatt
T. Hugh Young
John B. Youmans
Kate Savage Zerfoss
Thos. B. Zerfoss

Old Hickory

T. W. Dailey
E. P. Johnson
Albert S. Koenig
R. P. Miller
†E. B. Rhea
John H. Soloman

DECATUR COUNTY

Decaturville

H. L. Conger

Parsons

L. E. Luna

DICKSON COUNTY

Dickson

R. P. Beasley
Lawrence C. Jackson
†W. M. Jackson
W. J. Sugg
Hartwell Weaver

White Bluff

H. P. Spencer

DYER COUNTY

Dyersburg

†W. E. Anderson
E. H. Baird
†J. Paul Baird
J. P. Baird
J. B. Berry
J. D. Brewer
James B. Cochran
Percy A. Conyers
†C. L. Denton
†O. B. Landrum
J. A. Ledbetter
B. G. Marr
J. G. Price
R. David Taylor
N. S. Walker
Lydia V. Watson

Finley

P. C. Tipton

Lenox

W. G. Shelton

Newbern

D. T. Holland
John E. Frazier
E. T. Haskins
J. W. Wynne

Tigrett

P. E. Miller

FAYETTE COUNTY

Oakland

L. D. McAuley

Rossville

F. K. West

Somerville

H. L. Armstrong
†John L. Armstrong
John W. Morris
J. T. Nartlo
A. Richards

FENTRESS COUNTY

Jamestown

J. Claude Bertram
Guy C. Pinckley

†Military Serivice.

J. Peery Sloan
I. R. Storie

Wilder

C. A. Collins

FRANKLIN COUNTY

Decherd

Reynolds Fite

Sewanee

E. W. Kirby-Smith
H. T. Kirby-Smith
R. M. Kirby-Smith
Oscar N. Torian

Sherwood

George E. Bogart

Winchester

W. E. Lindsey
J. P. Moon
Alfred Parker Smith

GIBSON COUNTY

Bradford

J. H. McAnerny

Dyer

F. Douglass
John J. Jackson

Gibson

J. H. Rozzell

Humboldt

Harold Barker
Chas. W. Davis
J. W. Oursler
G. W. Penn
George E. Spangler

Medina

Robt. Morris

Milan

M. K. Crothers
H. P. Clemmer
†James O. Fields
R. F. Hughes
P. D. Jones
F. L. Keil

Trenton

T. V. Banks
J. O. Barker
†B. T. Bennett, Jr.
†Roscoe Faulkner
M. D. Ingram
W. C. McRee
†Henry J. Roberts

Yorkville

J. A. Jones

GILES COUNTY

Aspen Hill

G. C. Grimes

Bethel

L. A. Edmondson

Minor Hill

D. E. Jackson

Pulaski

Jas. K. Blackburn
T. F. Booth
D. W. Cowgill
A. W. Dean
F. B. Hulme
W. J. Johnson
W. K. Owens
J. U. Speer
R. E. Warren

GREENE COUNTY

Baileyton

J. G. Hawkins

Greeneville

S. T. Brumley
L. E. Coolidge
R. S. Cowles
N. H. Crews
L. E. Dyer
P. L. Fisher
C. P. Fox, Jr.
Haskell W. Fox
R. B. Gibson
J. G. Hawkins
C. B. Laughlin
W. T. Mathes
W. H. Tanksley

Mosheim

M. A. Blanton
Dale Brown
†Hal Menard

Tusculum

James T. Campbell

GRUNDY COUNTY

Monteagle

Wm. A Brewer
T. F. Taylor

Palmer

O. H. Clements

Pelham

U. B. Bowden

HAMBLEN COUNTY

Morristown

M. J. Bellaire
H. W. Bennett
Marion G. Fisher
P. L. Brock
P. L. Henderson
W. E. Howell
Y. Alvin Jackson
L. W. Nabers
F. F. Painter
R. A. Purvis
†D. R. Roach
B. C. Wessner
†D. J. Zimmerman

HAMILTON COUNTY

Chattanooga

Justin O. Adams
Geo. B. Alder
E. R. Anderson
Wm. E. Anderson
Wm. D. Anderson
J. J. Armstrong
†H. M. Ausherman
S. J. Axelrod
†C. H. Barnwell
S. H. Barrett
Wesley A. Barton
†Alvin H. Benz
J. L. Bibb
E. L. Bisbop
(Mbr. Davidson Co.)
T. R. Blanks
†F. B. Bogart
J. W. Bradley
†Forrest G. Bratley
J. C. Brooks
†J. C. Brooks, Jr.
L. P. Brooks
†S. W. Brown
Grover S. Brozozowski
Wm. E. Bryan
†E. F. Buchner, Jr.
W. R. Buttram
Earl R. Campbell
†Douglas Chamberlain
Cleo Chastain
†John W. Claiborne, Jr.
Rupert M. Colemore
John L. Cooley
Tolbert C. Crowell
Doyle E. Currey
J. Tom Currey
T. Lyles Davis
O. M. Derryberry
E. M. DeLay
Paul H. Dietrich
A. F. Ebert
Floyd G. Estridge
†J. R. Fancher
John B. Fitts
†Richard Van Fletcher
S. A. Fowler
J. Marsb Frere
O. C. Gass
E. A. Gilbert
A. E. Goodloe
C. H. Gurney
F. Russell Hackney
Alton G. Hair
†J. L. Hamilton
H. H. Hampton
†Frank Harris
E. M. Harrison
†Carl A. Hartung
John B. Haskins
G. P. Haymore
Chas. R. Henry
†Homer D. Hickey
†J. M. Higginbotham
A. W. Hilliard
J. F. Hobbs
Chas. Wm. Hock
John W. Hocker
J. McC. Hogshead
†Howard T. Holden
O. G. Hughes
P. R. Hysinger
D. Isbell
Burton L. Jacobs
†Joseph Johnson, Jr.
Franklin Johnson
J. Paul Johnson
J. W. Johnson
D. B. Karr
†Howard Karr
†Joe Killebrew
†John J. Killeffer
Gene H. Kistler
H. P. Larimore
Chester L. Lassiter
Hiram A. Laws, Jr.
Stewart Lawwill
†Phillip H. Livingston
H. D. Long
S. H. Long
Hugh B. Magill, Jr.
†T. J. Manson
S. S. Marchbanks
Fred E. Marsh
†Jos. T. Marshall
(Mbr. Blount Co.)
John R. Martin
M. A. Meacham
†Richard H. Mellen
†Augustus McCravey
J. B. McGhee
J. D. L. McPheeters
†Paul Milton
Cecil E. Newell
E. Dunbar Newell
E. T. Newell
Edward T. Newell, Jr.
A. M. Patterson
†R. L. Patterson
F. O. Pearson
John F. Preston
†W. D. L. Record
†Chas. T. Read
W. A. Reed
E. E. Reisman
†E. E. Reisman, Jr.
Herman Renner
†Gilbert Roberts
G. Madison Roberts
†Robert C. Robertson
Clarence Shaw
R. E. Shelton
†W. J. Sheridan
John N. Shipp
Leopold Shumacker
J. A. Smith
†Moore J. Smith
Harold J. Starr
John B. Steele
Willard Steele
Willard H. Steele
†Wm. A. Stem
Wm. G. Stephenson
†John A. Steward
†W. Dean Steward
J. B. Swafford
†Paul R. Swanson
J. Hamilton Taylor
Chas. Robert Thomas
Wm. E. Van Order
†O. L. Von Canon
A. J. Von Werssowetz
Dan N. Williams
G. Victor Williams
†Robert A. Wise
†James C. Wright

Daisy

R. L. Allen

Red Bank

J. McClure Richard

Soddy

E. L. Jenkins

HARDEMAN COUNTY

Bolivar

E. L. Baker
D. L. Brint
R. L. Cobh
C. L. Frost
†Geo. W. Jackson
†Wiley D. Lewis
W. D. Martin
B. F. McAnulty
W. Winters

Grand Junction

L. D. Pope

Middleton

P. M. Bishop

Whiteville

G. T. Brinkley

HARDIN COUNTY

Savannah

†C. Whitman Borg
O. C. Doty
J. V. Hughes
†S. L. Stephenson
Otis Whitlow
O. H. Williams

HAWKINS COUNTY

Bulls Gap

J. E. Kite
(Mbr. Greene Co.)

Rogersville

O. M. Swanay

HAYWOOD COUNTY

Brownsville

†Robert C. Berson
John M. Chambers
T. C. Chapman
Roy M. Lanier
W. D. Poston
Genn T. Scott
(Mbr. Madison Co. Soc.)
A. H. Sorrelle
John C. Thornton

HENDERSON COUNTY

Lexington

Geo. A. Brandon
R. M. Conger
J. F. Goff
C. J. Huntsman
E. G. Maxwell

Wildersville

C. E. Bolen

HENRY COUNTY

Paris

George D. Boone
†J W. Didcoct
†Arthur Dunlap
R. Graham Fish
John E. Goodpasture
C. H. Johnson
†J. C. McKissick
Geo. R. McSwain
J. H. McSwain
E. B. Paschall
W. G. Rhea
Henriette Veltman
C. D. Wilder

HICKMAN COUNTY

Centerville

W. K. Edwards
†William L. Phillips

Lyles-Wrigley

Chas. G. Bowers
Margaretta K. Bowers

Only

L. F. Pritchard

HUMPHREYS COUNTY

Waverly

H. C. Capps

JACKSON COUNTY

Gainesboro

L. R. Anderson
E. W. Draper
R. C. Gaw

JEFFERSON COUNTY

Jefferson City

T. A Caldwell
(Mbr. Knox Co.)
T. E. Wright
(Mbr. Knox Co.)

Strawberry Plains

Roland M. Webster
(Mbr. Knox Co.)

JOHNSON COUNTY

Mountain City

J. R. Butler
R. O. Glenn

Shouns

E. Bruce Rhea

KNOX COUNTY

Bearden

P. A. McGinnis

Byington

A. R. Garrison

Concord

†M. F. Cobb
J. S. Reynolds
(Mbr. Blount Co.)

Corryton

A. D. Simmons

Fountain City

F. H. Payne
J. M. Van De Griff
†Joe L. Raulston

Inskip

J. B. Parker

Knoxville

Eugene Abercrombie
Herbert Acuff
Eben Alexander
†Chas. Armstrong
W. S. Austin
Troy P. Bagwell
C. E. Barnett
Tom R. Barry
†Spencer Bell
M. L. Black
W. A. Boles
†Robert Brashear
L. A. Brendle
(Mbr. McMinn Co. Soc.)
Horace E. Brown
P. H. Cardwell
†E. E. Carrier
†Jack Chesney
†H. S. Christian
H. E. Christenberry
†H. E. Christenberry, Jr.
W. F. Christenberry
C. L. Chumley
W. E. Clark
Chas. F. Clayton
Edward S. Clayton
†Sam M. Cooper
K. C. Copenhaver
M. M. Copenhaver
William R. Cross
J. P. Cullum
H. K. Cunningham
V. C. Dail
†T. P. Day
R. V. Depue
†W. A. DeSautelle
W. T. DeSautelle
Earl Donathan
(Mbr. Shelby Co.)
W. F. Dorsey
†Thos. B. Drinnen
†Horton DuBard
†J. Gilbert Eblen
E. M. Edington
†J. B. Ely
W. H. Enneis
†Frank Faulkner
Roy Fisher
J. H. Gammon
†Edgar L. Grubb
†Glenn T. Grubb
E. A. Guynes
J. R. Hamilton
B. I. Harrison
Eugene Haun
Louis A. Haun
M. L. Hefley
†George Henson
Jesse C. Hill
John R. Hill
†Oliver W. Hill, Jr.
Victor Hill
S. H. Hodge
G. Turner Howard, Jr
A. G. Huffstetler
Geo. Inge
†C. E. Irwin
†W. J. Irwin
†Harry H. Jenkins
C. B. Jones
Frank E. Jones
J. H. Keeling
†John O. Kennedy
J. H. Kincaid
H. L. Kitts
†A. Hobart Lancaster
Robert P. Layman
J. Marshall Lea
Robert S. Leach
†John H. Lesher
Forest S. LeTellier
H. C. Long
H. H. McCampbell
T. L. McCarter
H. T. McClain
W. C. McClain
A. R. McCullough
†J. D. McCullough
M. D. McCullough
Richard McIlwaine
†Wm. T. McPeake
R. L. McReynolds
Edwin E. Miller
S. R. Miller
Ralph Monger
†John L. Montgomery
John D. Moore
Owen Moore
Joel C. Morris
J. F. Morrow
†Wm. S. Muse
J. B. Naive
J. B. Neil
†Eugene P. Nicely
Frank O. Nichols
Hazel Nichols
†Ralph Nichols
†B. M. Overholt
Nicholas Pappas
Robt. F. Patterson, Jr.
†Herschel Penn
†Jarrell Penn
H. Dewey Peters
S. B. Peters
B. F. Peterson
S. Joe Platt
†Herbert L. Pope
W. W. Potter
Bruce Powers
R. M. Powell
†John A. Range
†Hugh Reaves
W. D. Richards
N. G. Riggins
M. S. Roberts
Olin W. Rogers
†J. S. Ruffin, Jr.
A. L. Rule
J. H. Saffold
Wm. A. Shelton
†A B. Shipley
Chas. C. Smeltzer
Andrew Smith
Joe T. Smith
†Philip Smith
Rufus Smith
Vernon I. Smith
G. W. Smithers
John R. Smoot
†J. M. Stockman
G. W. Stone
R. G. Tappan
†George W. Tharp
†Phillp C. Thomas
D. R. Thomas
Geo. M. Trotter
R. G. Waterhouse
David Waterman
†Alvin J. Weber, Jr.
†Fred West
W. L. Whitehurst
†Leon J. Willien
G. A. Williamson
E. G. Wood
R. B. Wood
W. P. Wood
R. M. Young
E. Russell Zemp

Mascot

H. J. Bolen

Powell

M. F. Cruze

Pruden
A. L. Jenkins

LAKE COUNTY

Ridgely
W. S. Alexander
W. L. Sumners

Tiptonville
R. W. Griffin
E. B. Smythe

LAUDERDALE COUNTY

Henning
Thos. F. Pipkin

Ripley
J. L. Dunavant
J. B. Lackey
J. R. Lewis
Thos. E. Miller
†J. H. Nunn
W. C. Ramer
(Mbr. Madison Co. Soc.)
†W. V. Sanford

LAWRENCE COUNTY

Iron City
J. W. Jordan

Lawrenceburg
V. H. Crowder
W. O. Crowder
J. W. Danley
L. C. Harris
†Leo C. Harris, Jr.
T. A. McAmis
C. C. Stockard

Loretto
A. D. Cole

LEWIS COUNTY

Hohenwald
W. E. Boyce
Jerome Powers

LINCOLN COUNTY

Ardmore
D. T. Hardin
J. W. Maddox

Boonshill
J. E. Sloan

Elora
A. L. Griffith

Fayetteville
C. L. Goodrich
†Ben H. Marshall
†R. E. McCown
J. V. McRady
J. M. McWilliams
T. A. Patrick

Huntland
†K. P. Brown

LOUDON COUNTY

Lenoir City
†Fred E. Hufstedler
†J. A. Leeper
W. D. Padgett
(Mbr. Knox Co.)
Halbert Robinson
R. V. Taylor
L. L. Terrell

Loudon
Arthur P. Harrison
W. B. Harrison
J. R. Watkins

MACON COUNTY

Lafayette
D. D. Howser
M. L. Smith
(Mbr. Overton Co.)

MADISON COUNTY

Bemis
Henry N. Moore
Kelly Smythe
†Roderick C. Webb
†Paul Wylie

Gadsden
F. C. James

Jackson
J. G. Anderson
Everett Archer
Glenn D. Batten
G. H. Berryhill
†Cecil H. Brown
R. S. Brown
Swan Burrus
L. A. Byars
†Stevens Byars
Tate B. Collins
J. L. Crook
Wm. Grant Crook
†J. E. Douglass
†L. D. Farragut
W. T. Fitts
†Robt. S. Heltman
Henry H. Herron
S. M. Herron
Helen Johnston
Leland M. Johnston
G. Frank Jones
Horace L. Jones
J. W. McClaran
†Frank A. Moore
S. T. Parker
J. C. Pearce
J. E. Powers
Alvin B. Rosenbloom
W. G. Saunders
†Richard Taylor
†J. R. Thompson, Jr.
Chas F. Webb
R. B. White

Mercer
J. M. Curry

Pinson
R. S. Hearn

MARION COUNTY

South Pittsburg
†Russell B. James
(Mbr. Hamilton Co.)

MARSHALL COUNTY

Chapel Hill
†A. L. Cooper

Cornersville
W. F. Copeland
(Mbr. Giles Co.)

Lewisburg
J. T. Gordon
(Mbr. Bedford Co.)
Thomas A. Wheat
(Mbr. Bedford Co.)

Petersburg
W. S. Joplin
(Mbr Lincoln Co.)
†Edwin S. Leek
(Mbr. Bedford Co.)

MAURY COUNTY

Columbia
D. B Andrews
H. C Busby
†Wm. N Cook
J. T Hart
†Robin Lyles
†James B. Miller
R. S. Perry
†Edwin K. Provost
E. M Ragsdale
G. C. Williamson
J. W. Wilkes
Watt Yeiser

Hampshire
W. R. Webb

Mt. Pleasant
G. C. English
J. H Jones
C. D Waiton
Leon S. Ward

Springhill
B. H. Woodard

Williamsport
L. E. Ragsdale

McMINN COUNTY

Athens
W R. Arrants
R A. Brock
R W Epperson
C O Foree
W. Edwin Foree
†A. W. Reeser
Helen M. Richards
†L. A. Shields

Decatur
W. J. Abel

Englewood
D. P. Brendle
David F. Seay

Etowah
†S. Boyd McClary, Jr.
W. S. Moore
John C Sharp
(Mbr. Shelby Co.)

McNAIRY COUNTY

Selmer
†T. N Humphrey
E. M. Smith
John R. Smith

MONROE COUNTY

Madisonville
B. W. Bagwell
R. C. Kimbrough
H. C. Shearer

Sweetwater
L. L. Barnes
W. J. Cameron
†B. A. Dobbins
J. A. Hardin
†D F. Heuer, Jr.
†R. M. Price
T. M. Roberts
Morris Weiner

Tellico Plains
W. A. Rogers
M. D. Shearer

Vonore
J. A. McCollum

MONTGOMERY COUNTY

Clarksville
H. H. Edmonson
V. H. Griffin
I. E. Hunt
J H. Ledbetter
†P. L. Lyle
F. J. Malone
E. B. Ross
Jack Ross
John W. Ross
Bryce Runyon
M. L. Shelby
Paul E. Wilson
R. M. Workman

MOORE COUNTY

Lynchburg
F. Harlan Boober
(Mbr. Lincoln Co.)

MORGAN COUNTY

Oakdale
J. H. Carr
(Mbr. Roane Co.)

OBION COUNTY

Obion
J. C. Walker
(Mbr. Dyer, Lake, and Crockett Cos.)

Troy
E. A. Boswell
(Mbr. Dyer, Lake, and Crockett Cos.)

Union City
M. A. Blanton, Sr.
M. A. Blanton, Jr.
J. D. Carlton
George James
D. S. Latimer
Robt. G. Latimer
(Mbr. Dyer, Lake, and Crockett Cos.)
M. T. Tipton

OVERTON COUNTY

Livingston
W. M. Breeding
W. M. Brown
J. D. Capps
†H. B. Nevans
A. B. Qualls

PERRY COUNTY

Clifton
James T. Keeton

Linden
O. A. Kirk

PICKETT COUNTY

Byrdstown
†Floyd B. Hay
(Mbr. Overton Co.)

POLK COUNTY

Benton
†John Lillard
(Mbr. McMinn Co.)

Copperhill
W. Y. Gilliam
Thomas J. Hicks
†H. H. Hyatt
(Mbr. Hamilton Co.)
H. P. Hyde
C. W. Strauss

Ducktown
A. J. Guinn
(Mbr. Hamilton Co. Soc.)

Isabella
F. O. Geisler

PUTNAM COUNTY

Algood
J. T. Moore

Cookeville
†Robert Akin
Lex Dyer
W. A. Howard
John T. Mason
Thurman Shipley
Z. L. Shipley
†H. H. Taylor
J. Fred Terry
R. L. Witherington

Granville
L. M. Freeman

Monterey
T. M. Crain

RHEA COUNTY

Dayton
Albert Broyles
(Mbr. Hamilton Co.)
W. A. Thomison
(Mbr. Hamilton Co.)
J. J. Rogers
(Mbr. Hamilton Co.)

Spring City
Max D. Lindsay
(Mbr. Hamilton Co.)

ROANE COUNTY

Harriman
Thos. L. Bowman
†L. A. Killeffer
F. A. Neergaard

Kingston
J. C. Fly
Nat Sugarman

Oliver Springs
Fred O. Stone
(Mbr. Anderson-Campbell Co.)

Rockwood
†F. Davis Owings
Thos. H. Phillips
R. F. Regester
G. E. Wilson

ROBERTSON COUNTY

Adams
J. R. Connell

Cedar Hill
Robert H. Elder

Ridgetop
W. S. Rude

Springfield
C. M. Banks
W. B. Dye
John S. Freeman
J. S. Hawkins
A. R. Kempf
R. L. Mathews
W. W. Porter
†W. P. Stone
J E. Wilkison

White House
R. H. Hirsch

RUTHERFORD COUNTY

Lascassas
J. C. Kelton

Murfreesboro
W. M. Bevis
J. B. Black
V. S. Campbell
†Harvey W. Carter
John F. Cason
J. R. Gott
A. J. Jamison
J. K. Kaufman
Lois Kennedy
B. W. Rawlins
J. A. Scott
Richard E. Strain
(Mbr. Davidson Co. Soc.)
Sam L. Wiles

Overall
S. B. Smith

Smyrna
J. M. Shipp

SCOTT COUNTY

Huntsville
J. I. Foster
M. F. Frazier

Norma
D. T. Chambers

Oneida
M. E. Thompson
Milford Thompson

Robbins
Pitney Phillips

SEVIER COUNTY

Rutledge
L. C. Bryan

Sevierville
R. A. Broady
†John A. Conroy
R. A. McCall
†R. Mel Perry
Robt. F. Thomas
C. P. Wilson
O. H. Yarberry

SHELBY COUNTY

Brunswick
C. C. Chaffee

Collierville
L. P. Pearce

Cordova
W. F. Boyd
John T. Carter, Jr.
C. A. Chaffee

Forest Hill
J. E. Clark

Memphis
Shields Abernathy
W. M. Adams
†Justin H. Adler
W. G. Alford
C. D. Allen
Jacob Alperin
E. L. Anderson
S. B. Anderson
W S. Anderson
†C. G Andrews
G. E. Ankerson
D. H. Anthony
†J. M. Aste
H. E. Atherton
J. C. Ayres
†J. C. Ayres, Jr.
†C. H. Avent
Wm. Wallace Aycock
C. O. Bailey
L. S. Baskin
M. L. Bearden
J. L. Beauchamp
Chas. A. Bender
†J. M. Bethea
J. M. Biggs
†James D. Biles, Jr.
†W. T. Black, Jr.
†Sam Blackwell
Breen Bland
C. D. Blassingame
A. L. Blecker
†Phil Bleecker
J. B. Blue
W. R. Blue
Robt. F. Bonner
R. L. Bourland
R. L. Bowlin
H. B. Boyd
L. F. Boyd
†W. T. Braun, Jr.
Jas. T. Bridges
†Carey Bringle
S. N. Brinson
J. M. Brockman
J. H. Bronstein
Samuel Bryan
K. M. Buck
†J. A. Buchignani
T. J. Bulger
W. D. Burkhalter
Geo. H. Burkle, Jr.
E. Guy Campbell
D. M. Carr
J. P. Carter
L. L. Carter
C. B. Chaffee
A. H. Chamberlain, Jr.
†Hughes Chandler
W. C. Chaney
†R. E Ching
†R. B Chrisman, Jr.
J. C. Clark
W. F Clary
J. D. Cleveland
E. W. Cocke
†I. S. Coe
W. C. Colbert
S. W. Colev
†James H Collins
E. D. Connell
A. F Cooper
G. A. Coors
John E. Cox
W R Cox
H. F. Crawford
†J. K. Crawford
†P. T. Crawford
†J. A. Crisler, Jr.
C. V. Croswell
Howard Curl
G. W. Dahnke
†J. A. Danciger
R. R. Davenport
J. M. Davis
†Chas. J. Deere
V J. Demarco
John L. Dies
W T. Dinsmore
†W. F. Dobyns
J. M. Dorris
†J. M. Dougall
J. J. Douglas
I. G. Duncan
†Elmer S. Eddins
E. C. Ellett
†C. B. Etter
†J. D. Evans
†M. L Evans
Sidney S. Evans
H. B. Everett
†Turley Farrar
P. M. Farrington
Harold Feinstein
F. W. Fiedler
J. B. Fisher
R. B. Flaniken
J. S. Fleming
†B. F. Floyd
J. H. Francis
J. F. Fraser
†J A. Gardner, Jr.
O. P. Garner
C. H. Glover
†F. A. Goldberg
A. M. Goltman
D. W Goltman
†J. S. Goltman
J. O. Gordon
A C. Gose
†H B Gotten
†Nicholas Gotten
W. H. Gragg
L. M. Graves
W. R. Graves
†H. D. Gray
H. W. Greenburgh
A J. Grobmyer
E R. Hall
†V. A Hall
J. F Hamilton
E C Ham
†J A. Hanna
B F Hardin
A E. Hardison
J H Harris
†Mallory Harwell
C. H Hearcock
†R D. Henderson
R. G. Henderson
M. B Hendrix
R. A Hennessey
D. M. Henning
J. P Henry
†A. L Herring
J. H Herring
George B. Higley
H. G Hill
J. J. Hobson
M. W. Holehan
E. M. Holder
J. E Holmes
†J. L. Houston
A. G. Hudson
J. A. Hughes
†John D Hughes
†James G. Hughes
†C. W Ingle
A. G. Jacobs
H B. Jacobson
H. J. Jacobson
C. E. James
D. H. James
J A. James
J. L. Jelks
†Harry Johnson
†Albert M. Jones
Geo P. Jones
L A. Kasselberg
Ernest G. Kelly
H. G. Kessler
†Webb B. Key
†J. C. King
Richard King
V. D. King
T. A. Kirkland
R. A. Knight
O. M. Laten
W. S. Lawrence
N. E Leake
T F. Leatherwood
R. W. Leonard
Lonis Leroy
Gilbert J. Levy
Louis Levy
A C Lewis
†C. K. Lewis
P. M. Lewis
†F. D. Linn
E. J. Lipscomb
Geo. R. Livermore
†D. G. Lockwood
†J. P. Long
W. H. Lovejoy
†J. H. Lotz
†Battle Malone, II
†T. P. Manigan
Robert Mann
†Philip Markle
C. H. Marshall
†A. D. Mason, Jr.
Chas. R. Mason
J. W. Mason
Robin F. Mason
O. S. Matthews
†Wm. P Maury, Jr.
R. L. Mayer
A. H. Meyer
†Richard A. Miller
R. H. Miller
†R. W. Miller
W. D. Mims
H. F. Minor
E. C. Mitchell

Military Service.

E. D. Mitchell
†E. D. Mitchell, Jr.
F. T. Mitchell
†J. C. Mobley, Jr.
Moore Moore
Thomas D. Moore
Wallace P. Moore
C. H. Morgan
J. L. Morgan
†Henry Moskowitz
†J. P. Moss
J. T. Moss
T. C. Moss
Swann B. Moss
R. Lyle Motley
†Francis Murphey
G. W. Musgraves
Roland H. Myer
J. J. McCaughan
D. C. McCool
R. B. McCormick
O. S. McCowan, Sr.
†O. S. McCowan, Jr.
†J. W. McElroy
J. L. McGehee
J. A. McIntosh
†E. E. McKenzie
J. Wesley McKinney
A. R. McMahan
J. A. McQuiston
R. T. Nowlin
C. M. Oberschmidt
†Van A. Odle
J. T. O'Brien
D. W. Oelker
Charles B. Olin
†B. T. Otey
J. P. Owens
Henry Packer
Geo. E. Paullus
G. E. Paullus, Jr.
Cleveland Payne
R. S. Pearce
E. M. Peete
†Maurice L. Pepper
Leo F. Pierotti
W. H. Pistole
L. R. Polk
†R. W. Polk
A. R. Porter, Jr.
Louise B. Powell
H. W. Priddy
W. T. Pride
H. W. Qualls
A. G. Quinn
J. W. Ragsdale
W. E. Ragsdale
W. E. Ragsdale, Jr.
E. A. Raines
†H. R. Raines
†S. L. Raines
†L. C. Ramsay
Robert Raskind
G. P. Rawls
†R. B. Ray
J. R. Reinberger
Alma B. Richards
R. H. Rigdon
W. W. Riggs
M. J. Roach
F. L. Roberts
(Mbr. Gibson Co.)
†Chas. G. Robinson
J. E. Robinson
W. W. Robinson
W. A. Ruch
S. T. Rucker
W. L. Rucks
H. G. Rudner
Hillver Rudisill, Jr.
†W. A. Runkle
F. B. Russell, Jr.
R. O. Rychener
L. C. Sanders
R. L. Sanders
S. H. Sanders
C. H. Sanford
†W. T. Satterfield
David E. Scheinberg
H. C. Schmeisser
P. C. Schreier
L. V. Schmittou
M. W. Searight
L. L. Sebulsky
M. B. Selegstein
R. E. Semmes
†John L. Shaw
J. J. Shea
S. J. Sibley
W. L. Simpson
†Hugh Smith
J. H. Smith
O. E. Smith
F. Ward Smythe
Harold A. Sparr
J. S. Speed
M. G. Spingarn
Joseph Stabnick
E. A. Stanfield
J. E. Stanfill
J. B. Stanford
Oscar Stegall
Neuton S. Stern
E. M. Stevenson
William D. Stinson
†S. D. Sullenberger
†B. S. Talley
Finis A. Taylor
Newman Taylor
†Robt. Taylor
W. W. Taylor
†Morton J. Tendler
Horace E. Thomas
†W. M. Tipton
†Alvin Brush Tripp
H. K. Turley
C. C. Turner
†C. F. Varner
J. A. Vaughn
S. L. Wadley
O. P. Walker
W. W. Walker
†R. A. Wallace
Cecil E. Warde
†T. L. Waring
†O. S. Warr, Jr.
H. C. Watkins
†W. W. Watkins
†J. K. Welch, Jr
J. J. Weems
†Samuel I. Wener
Joseph E. Wheeler
Thomas H. West
J. E. Whitleather
†W. L. Wilhelm
A. B. Williams
†H. G. Williams
S. B. Williamson
W. L. Williamson
†Harwell Wilson
†James E. Wilson
P. H. Wood

Millington

Albert S. Witherington

Oakville

F. H. Alley
Francis H. Cole
J. O. Griffin
†Felix A. Hughes, Jr.

Woodstock

L. C. Johnson

SMITH COUNTY

Brush Creek

A. O. Parker

Carthage

R. E. Key
L. D. Sloan

Chestnut Mound

E. D. Gross

Dixon Springs

Rhea E. Garrett

Elmwood

W. F. Boze

Gordonsville

W. B. Dalton
Thayer S. Wilson

Pleasant Shade

J. J. Beasley

STEWART COUNTY

Indian Mound

C. N. Keatts
(Mbr. Montgomery Co.)

SULLIVAN COUNTY

Blountville

†J. W. Erwin

Bluff City

Virginia Shepherd

Bristol

T. R. Bowers
Chas. S. Butler
†W. C. Carreras
N. H. Copenhaver
Arthur B. English
Wm. M. Gammon
Arthur Hooks
†Tom H. Kuhnert
†J. O. Marcy
S. E. Massengill
Louis C. McNeer
†Bruce W. Mongle
N. S. Peters
M. G. Rock
L. B. Snapp
†L. B. Snapp, II
James F. Thackston
D. D. Vance
Wm. K. Vance, Jr.
Julian E. Williams

Kingsport

M. J. Adams
†F. L. Alloway
†H. O. Bolling
†H. S. Burem
†R. H. Brown
R. T. Childress
E. M. Corns
L. C. Cox
Paul W. Cox
C. S. Crook
E. O. Depew
F. M. Duckwall
J. A. Flora
†J. B. Hamilton
J. V. Hodge
†B. Roy Howard
G. G. Keener
†M. D. Massengill
A. D. Miller
Thos. McNeer
†Jas. F. Morton
J. R. Pierce
W. H. Reed
G. M. Rogers
C. F. N. Schram
E. W. Tipton
W. A. Wiley
Jarrett E. Williams

Piney Flats

Aaron Cole
(Mbr. Washington-Carter-Unicoi Soc.)

SUMNER COUNTY

Bethpage

W. W. Roark

Hendersonville

J. H. Stephens

Gallatin

I. H. Beasley
W. M. Dedman
C. D. Giles
†P. M. Huggin
W. N. Lackey
Homer Reese
C. D. Robbins
R. B. Turnbull
†B. H. Warren

Portland

C. H. Donoho
R. L. Johnson
E. L. Peden
R. W. Simonton

Westmoreland

Dewey Foster

TIPTON COUNTY

Brighton

Waldo McLister

Covington

E. Feldman
S. Hurt
†N. L. Hyatt
L. J. Lindsey
H. S. Rule
J. C. Witherington

Mason

C. E. Hardy

TROUSDALE COUNTY

Hartsville

F. M. Blankenship
(Mbr. Smith Co.)
J. J. Gwin
(Mbr. Sumner Co.)

UNICOI COUNTY

Erwin

†R. H. Harvey
†W. C. Humbert
†H. L. Monroe
J. R. Moody

WARREN COUNTY

McMinnville

James H. Boles
(Mbr. White Co.)
E. E. Northcutt
(Mbr. Cocke Co. Soc.)

WASHINGTON COUNTY

Johnson City

John M. Adams
J. R. Bowman
E. T. Brading
G. J. Budd
G. E. Campbell
†C. M. Creech
C. W. Friberg
†H. B. Fuqua
Lee K. Gibson
†C. S. Gresham
J. L. Hankins
†Walter D. Hankins
R. O. Ingham
L. G. Jones
E. A. Lodge
C. H. Long
H. D. Miller
J. G. Moss
J. T. McFaddin
T. P. McKee
†Harry Myron, Jr.
P. E. Parker
†Wallace L. Poole
†W. G. Preas
Geo. K. Scholl
Geo. J. Sells
†Hugh F. Swingle
†Chas. P. Wofford
Helen D. Wofford
J. W. Wallace
E. T. West

Jonesboro

A. J. Willis

Limestone

R. H. Ruble
G. V. Stanton

Mountain Home

H. W. Crouch
†H. B. Cupp
Ira M. Gambill
Bertram L. Levy
C. K. Slade

Telford

C. W. Brabson

WAYNE COUNTY

Collinwood

W. W. Rippey

Waynesboro

F. H. Norman
Dexter L. Wood

WEAKLEY COUNTY

Dresden

M. R. Beyer
(Mbr. Humphreys Co. Soc.)
M. D. Ingram
J. E. Taylor
†Paul W. Wilson

Gleason

Robert M. Jeter

Greenfield

R. W. Brandon, Jr.

Martin

R. W. Brandon
†M. H. Buckley
H. G. Edmondson

Sharon

D. E. Young

WHITE COUNTY

Doyle

H. B. Ausban

Sparta

J. C. Blankenship
E. B. Clark
C. B. Roberts
C. E. Tubb

WILLIAMSON COUNTY

Franklin

W. B. Farris
R. S. Gass
Harry Guffee
R. H. Hutchison
B. T. Nolen
Don C. Peterson
Walter Pyle
T. C. Rice
†W. F. Roth, Jr.
H. C. Stewart
J. O. Walker

WILSON COUNTY

Gladeville

J. L. Ames

Lebanon

F. B. Dunklin
†O. Reed Hill
C. W. Huffman
R. C. Kash
Chas. T. Lowe
†J. J. McFarland, Jr.
S. B. McFarland
B. S. Rhea
J. H. Tilley
†W. K. Tilley
Philips Turner

Watertown

J. R. Doak

MEMBERS RESIDING OUTSIDE OF TENNESSEE

E. S. Blair, 323 Harralson Avenue.....Gadsden, Ala.
R. J. Bogan, U. S. Veterans Hospital.....Fargo, N. D.
E. P. Bowerman, Bellevue Hospital.....New York
John A. Brabson, Nalle Clinic.....Charlotte, N. C.
E. E. Byrd, Veterans Adm. Facility.....Lake City, Fla
A. M. Carr.....Alva, Ky.
J. L. Chestnut, Charity Hospital.....New Orleans, La.
E. Gurney Clark, 615 North Wolfe Street.....Baltimore, Md.
Henry M. Cox, c/o T. V. A.....Fontana Dam, N. C.
J. W. Dabbs.....Greenwood, Miss.
B. A. Dobbins, Presbyterian Hospital, 168th and Broadway...New York, N. Y.
M. M. Drane, 820 Florida Power Building.....St. Petersburg, Fla.
George Gartly, Kissimmee Hospital.....Kissimmee, Fla.
H. E. Handley, Commonwealth Fund, 41 East 57th St.....New York, N. Y.
H. P. Hewitt, 211 Andrews Street.....Rossville, Ga.
R. D. Hollowell, Vocational School Building.....St. Petersburg, Fla.
J. I. Huggins, 835 10th Street.....Bowling Green, Ky.
S. E. Johnson, 401 Post Office Building.....Oklahoma City, Okla.
D. T. Kimbrough, U. S. Admr. Facility.....Oteen, N. C.
J. M. Mittleman.....New York, N. Y.
F. L. Moore, Commonwealth Fund, 51 East 57th St.....New York, N. Y.
O. B. Murray.....Rossville, Ga.
Fay B. Murphy.....Rossville, Ga.
Robert L. McCracken, Bellevue Hospital.....New York, N. Y.
Barton McSwain, New York Hospital, 525 East 68th St.....New York, N. Y.
L. C. McVay.....Marion, Ark.
A. C. Parker.....Clarksdale, Ark.
Jimmy Pinkston, 6627 Heartwood Dr.....Oakland, Calif.
H. H. King, Route No. 3.....Alpharetta, Ga.
John M. Saunders, Children's Bureau, U. S. Dept. Labor...Washington, D. C.
William K. Sullivan, 707 4th Pike Building.....Seattle, Washington
Louis F. Verdell, Administration Facility.....Roanoke, Va.
Lew Ernest Wallace.....Fletcher, N. C.
Olin C. West, 535 North Dearborn Street.....Chicago, Ill.
M. C. Wiggins, 1930 East 4th Street.....Tucson, Ariz.
Erle Ewing Wilkinson, University of Texas.....Galveston, Texas
W. C. Winton, Iola Sanatorium.....Rochester N. Y.
Harold V. Woods, 1832 Claremont Avenue.....Independence, Mo.
J. C. Woodall.....Trenton, Ky.

†Military Service

VETERAN MEMBERS

A. C. Bailey, Jackson Bldg., Nashville.....Davidson
Chas. Brower, Jackson Bldg., Nashville.....Davidson
M. G. Buckner, Jackson Bldg., Nashville.....Davidson
R. A. Daniel, Sr., Donelson.....Davidson
McPheeters Glasgow, Jackson Bldg., Nashville.....Davidson
J. W. Handley, No. 2 Polk Apt., Nashville.....Davidson
F. E. Hasty, Nashville.....Davidson
C. L. Hill, Doctors Bldg., Nashville.....Davidson
Wm. Litterer, Miami, Fla.....Davidson
David R. Pickens, Woodmont Blvd., Nashville.....Davidson
Robert O. Tucker, Doctors Bldg., Nashville.....Davidson
O. H. Wilson, Doctors Bldg., Nashville.....Davidson
David H. Bryan, Monteagle.....Grundy
Wm. D. Anderson, Chattanooga.....Hamilton
J. H. Barnett, 111 Shallowford Rd., Chattanooga.....Hamilton
O. L. Blackwell, Route 1, Chattanooga.....Hamilton
J. A. Gentry, 3439 Lamar Avenue, Chattanooga.....Hamilton
W. J. Hillas, 1910 East Ninth, Tucson, Ariz.....Hamilton
W. R. Irish, South Pittsburg.....Hamilton
J. E. Nelson, 3112 Brainerd Rd., Chattanooga.....Hamilton
Fred B. Stapp, Loveman Bldg., Chattanooga.....Hamilton
George R. West, Bradenton, Fla.....Hamilton
Geo. P. Willbanks, Rossville, Ga.....Hamilton

R. J. Perry, Springville ..... Henry
J. D. Quarles, Whitleyville ..... Jackson
C. E. Reeves, Gainesboro ..... Jackson
George W. Booker, 716½ Gay St., Knoxville ..... Knox
C. M. Capps, 519½ Market St., Knoxville ..... Knox
Robt. Lee Carter, Route 1, Knoxville ..... Knox
Thos. F. Fitzgerald, Clinton Pike, Knoxville ..... Knox
J. D. Henderson, Boyd's Creek, Tenn. ..... Knox
Walter Luttrell, Doctors Bldg., Knoxville ..... Knox
R. F. McCrary, 1627 Riverside Drive, Knoxville ..... Knox
C. F. Mooney, 1725 Magnolia Avenue, Knoxville ..... Knox
R. P. Oppenheimer, Box 462, Knoxville ..... Knox
Geo. T. Wilhelm, 829 Temple Ave., Knoxville ..... Knox
E. G. Sanders, Stantonville ..... McNairy
Henry C. Sanders, Selmer ..... McNairy
J. G. Cottongim, Jackson ..... Madison
Hermon Hawkins, Jackson ..... Madison
J. T. Herron, Jackson ..... Madison
R. L. Wylie, Scotts Hill ..... Madison
A. W. Lewis, Copperhill ..... Polk
W. W. Hill, Harriman ..... Roane
W. B. Burns, Medical Arts Bldg., Memphis ..... Shelby
T. N. Coppedge, 1607 Harbert Ave., Memphis ..... Shelby
P. D. Elcan, 250 Buena Vista St., Memphis ..... Shelby
E. E. Francis, Exchange Bldg., Memphis ..... Shelby
W. L. Howard, Exchange Bldg., Memphis ..... Shelby
Chas. C. King, 1475 Linden Ave., Memphis ..... Shelby
J. B. McNulty, 217 Stonewall Place, Memphis ..... Shelby
W. T. Swink, 1121 Madison Ave., Memphis ..... Shelby
B. F. Turner, Madison Ave., Memphis ..... Shelby
A. A. Bradley, R.F.D. No. 5, Cookeville ..... White
W. J. Breeding, 802 Lexington Street, Lakeland, Florida ..... White
S. E. Gaines, Sparta ..... White
E. L. Mooneyham, Rock Island ..... White

DECEASED MEMBERS

H. D. Hicks, Clinton ..... Anderson
S. S. Moody, Shelbyville ..... Bedford
E. H. Lowe, Maryville ..... Blount
C. C. Vinsant, Maryville ..... Blount
W. M. Barnes, Henderson ..... Chester
C. G. Griffin, Miami, Florida ..... Davidson
Sam M. Bloomstein, Nashville ..... Davidson
Y. W. Haley, Nashville ..... Davidson
W. P. Watson, Dyersburg ..... Dyer
J. C. Rice, Braden ..... Fayette
J. Y. Alexander, Middleton ..... Hardeman
Benton B. Mitchell, Fountain City ..... Knox
H. L. Carroll, Knoxvile ..... Knox
B. B. Cates, Knoxville ..... Knox
Claud R. Huffman, Knoxville ..... Knox
W. R. McCamy ..... Knox
W. S. Nash, Knoxville ..... Knox
Frank LeRoy Young, Knoxville ..... Knox
Hugh B. Disharoon, Lewisburg ..... Marshall
J. B. LaHiff, Clarksville ..... Montgomery
J. P. Rogers, Clarksville ..... Montgomery
M. B. Murfree, Murfreesboro ..... Rutherford
F. M. Malone, Capleville ..... Shelby
J. L. Andrews, Mempbis ..... Shelby
Robert Mann, Mempbis ..... Shelby
J. B. McElroy, Memphis ..... Shelby
Whitman Rowland, Mempbis ..... Shelby

BOSTON MEDICAL LIBRARY OCT 2 1944
CATALOGUED OCT 2 F. K. M.

INDEX TO VOLUME XXXVI

SUBJECTS

A, B, C's of "Social Security"—Present and Proposed, The 457
Abdomen, Perforating Wounds of the—Elkin L. Rippy, M.D., Nashville 20
Abstracts of Current Literature 41
83, 121, 156, 196, 237, 283, 321, 364, 406, 445, 478
Acute Abdominal Symptoms Resulting from Black Widow Spider Bite—Major Harwell Wilson, Medical Corps, A. U. S. 324
Anesthesia, Convulsions Under Ether—Murray B. Davis, M.D., Nashville 373
American Medical Association, Report of the Delegates to the, June 7-10, 1943 354
Bacillary Dysentery: Résumé of the Disease and Its Modern Treatment—Edward L. Turner, M.D., Nashville 424
Bilateral Adrenal Hemorrhage (Waterhouse-Friderichsen Syndrome): Report of Two Cases, Meningococcemia with — Lieutenant Colonel M. Kasich, Medical Corps, Army of the United States, and Major S. Disick, Medical Corps, Army of the United States 464
Burns by the Use of Triple Dyes, Treatment of—Charles C. Trabue, M.D., Nashville 13
Burns, Local Treatment of—R. B. Chrisman, Jr., Lieutenant Colonel, Medical Corps, Chief Surgical Service, Station Hospital, Camp Forrest, Tennessee 413
Book Review 159, 200, 325
Black Widow Spider Bite, Acute Abdominal Symptoms Resulting from—Major Harwell Wilson, Medical Corps, A. U. S. 324
Cancer of the Prostate—Burnett W. Wright, M.D., Nashville 223
Capitalism, Your Stake in—Eric Johnston, President, Chamber of Commerce of the United States 254
Carcinoma of the Colon, The Diagnosis and Treatment of—Harwell Wilson, M.D., F.A.C.S., Memphis 45
Carcinoma of the Lip with Special Reference to the Management of the Regional Nodes, Treatment of—Harwell Wilson, M.D., F.A.C.S., Memphis 140
Certain Complications of Treatment—Albert Weinstein, M.D., F.A.C.P., Nashville 305
Chemical Warfare as Related to Civilian Defense, Medical Aspects of—Rexford M. Powell, M.D., University of Tennessee 289
Civilian Defense, Medical Aspects of Chemical Warfare as Related to—Rexford M. Powell, M.D., University of Tennessee 289
Complications of Treatment, Certain—Albert Weinstein, M.D., F.A.C.P., Nashville 305
Committee on Prepayment Plans for Hospital and Medical Services, Report of the 377
Committee Reports 436
Concerning Rocky Mountain Spotted Fever 298
Conditions, Diets in Dermatological—Robert N. Buchanan, Jr., M.D.; Howard King, M.D.; C. M. Hamilton, M.D., Nashville 89
Convulsions Under Ether Anesthesia—Murray B. Davis, M.D., Nashville 373
Council of the Medical and Chirurgical Faculty of Maryland on the Wagner-Murray-Dingell Social Security Plan (S. 1161 and

H. R. 2861): A Statement of the Attitude 416
Colon, The Diagnosis and Treatment of Carcinoma of the—Harwell Wilson, M.D., F.A.C.S., Memphis 47
Convulsions Under Ether Anesthesia—Murray B. Davis, M.D., Nashville 373
Deaths 113, 153, 234, 320, 361, 402, 435, 476
Delegates to the American Medical Association, June 7-10, 1943, Report of the 354
Description of an Industrial Medical Program in an Aircraft Factory—Carrington Harrison, M.D., Nashville 127
Diagnosis and Treatment of Carcinoma of the Colon, The—Harwell Wilson, M.D., F.A.C.S., Memphis 47
Dermatological Conditions, Diets in—Robert N. Buchanan, Jr., M.D.; Howard King, M.D.; C. M. Hamilton, M.D., Nashville 89
Diets in Dermatological Conditions—Robert N. Buchanan, Jr., M.D.; Howard King, M.D.; C. M. Hamilton, M.D., Nashville 89
Diseases of the Mediterranean Basin—Edward L. Turner, M.D., Nashville 205
Draft Rejection Figures: An Interpretation of W. W. Bauer, M.D., Chicago, Illinois 61
Drug Treatment of Malaria, Suppressive and Clinical, The 418
Dyes, Treatment of Burns by the Use of Triple —Charles C. Trabue, M.D., Nashville 13
Dysentery, Bacillary: A Résumé of the Disease and Its Modern Treatment—Edward L. Turner, M.D., Nashville 424
Editorials 32
72, 111, 151, 186, 232, 278, 317, 356, 394, 434, 474
Epidemic Keratoconjunctivitis—M. L. Berliner, M.D., New York 138
Epidemic of Scarlet Fever, Find Sulfadiazine Controlled an 453
Essential Qualifications of a Great Surgeon, The—Ernest Sachs, M.D., St. Louis, Missouri 173
Ether Anesthesia, Convulsions Under—Murray B. Davis, M.D., Nashville 373
Federal Legislative Bulletin 24 212
Fever, Concerning Rocky Mountain Spotted 298
Figures, An Interpretation of Draft Rejection —W. W. Bauer, M.D., Chicago, Illinois 61
Find Sulfadiazine Controlled an Epidemic of Scarlet Fever 453
House of Delegates, Index to Proceedings of the 355
House of Delegates, Proceedings of the, One Hundred Tenth Annual Session Tennessee State Medical Association, Noel Hotel, Nashville, Tennessee, April 11, 1943 329
Hyperparathyroidism—N. S. Shofner, M.D.; E. H. Barksdale, M.D.; Eugene M. Regen, M.D., Nashville 97
Index to Proceedings of the House of Delegates 355
Industrial Medical Program in an Aircraft Factory, Description of—Carrington Harrison, M.D., Nashville 329
Interpretation of Draft Rejection Figures, An W. W. Bauer, M.D., Chicago, Illinois 61
Keratoconjunctivitis, Epidemic—M. L. Berliner, M.D., New York 138
Lip, Treatment of Carcinoma of the, with Special Reference to the Management of the Regional Nodes—Harwell Wilson, M.D., F.A.C.S., Memphis 140
List of Officers of the Tennessee State Medical Association 44
87, 161, 202, 244, 287, 327, 371, 411, 451, 483
Local Treatment of Burns—R. B. Chrisman, Jr., Lieutenant Colonel, Medical Corps, Chief Surgical Service, Station Hospital, Camp Forrest, Tennessee 413
Malaria, The Drug Treatment of, Suppressive and Clinical 418
Management of Placenta Previa—Milton Smith Lewis, M.D., Nashville 258
Medical Aspects of Chemical Warfare as Related to Civilian Defense—Rexford M. Powell, M.D., University of Tennessee 289
Medical Societies 39
82, 120, 155, 196, 236, 282, 321, 364, 405, 443, 477
Medical Practice in Wartime—William Calvert Cheney, M.D., M.S. in Medicine, F.A.C.P., Memphis 210
Mediterranean Basin, Diseases of the—Edward L. Turner, M.D., Nashville 205
Membership List, 1943 485
Meningococcemia with Bilateral Adrenal Hemorrhage (Waterhouse-Friderichsen Syndrome): Report of Two Cases—Lieutenant Colonel M. Kasich, Medical Corps, Army of the United States, and Major S. Disick, Medical Corps, Army of the United States 464
Multiple Cost of Social Security, The—C. O. Pauley, President, Insurance Economics Society of America 382
News Notes and Comments 38
80, 116, 154, 191, 235, 282, 320, 361, 403, 441, 476
News from and About Tennessee Doctors in the Military Service 38
78, 115, 154, 195, 235, 282, 320, 402, 435, 476
Not All Men Think Alike—Lewis T. Buckman, M.D., President, the Medical Society of the State of Pennsylvania 57
Officers of the Tennessee State Medical Association, List of 44
87, 161, 202, 244, 287, 327, 371, 411, 451, 483
Office of War Information—Federal Security Agency 386
Other Medical Societies 121
155, 196, 236, 282, 406, 444, 478
Ovarian Tumors, Special: With a Report of a Series of Cases—Carroll H. Long, M.C., M.S. (Surgery), Johnson City; Joseph Ziskind, M.D., Department of Pathology, Tulane University, New Orleans, Louisiana 5
Pancreas, Traumatic Pseudocyst of the—Carrington Harrison, M.D., and Fred Cooper, M.D., Nashville 299
Pencillin Research Committee Issues First Clinical Report 375
Peptic Ulcer, Surgical Treatment of—G. Turner Howard, Jr., M.D., Knoxville 310

Perforating Wounds of the Abdomen—Elkin L. Rippy, M.D., Nashville ... 20
Physical Therapy, The Scientific Use of—Mildred F. Heap, B.S., Vanderbilt University Hospital, Nashville ... 455
Placenta Previa, Management of — Milton Smith Lewis, M.D., Nashville ... 258
Postgraduate Instruction in Surgical Diagnosis, Program of, Outline of Lectures—J. R. Bromwell Branch, A.B., M.D., Instructor 55
Postwar Coresponsibility of the Health Professions, The—Robert L. Swain, Editor, *Drug Topics* ... 247
Proceedings of the House of Delegates, Index to ... 355
Program of Postgraduate Instruction in Surgical Diagnosis: Outline of Lectures—J. R. Bromwell Branch, A.B., M.D., Instructor ... 55
Prostate, Cancer of the—Burnett W. Wright, M.D., Nashville ... 223
Prostatic Enlargement—Jefferson C. Pennington, M.D., Nashville ... 1
Proceedings of the House of Delegates, One Hundred Tenth Annual Session, Tennessee State Medical Association, Noel Hotel, Nashville, Tennessee, April 11, 1943 ... 329
Procurement and Assignment Service for Physicians, Dentists, and Veterinarians—Responsibilities, Accomplishments, and Future Problems—Harold S. Diehl, M.C., Minneapolis, Minnesota ... 163
Report of the Committee on Prepayment Plans for Hospital and Medical Services ... 377
Prepayment Plans for Hospital and Medical Services, Report of the Committee on ... 377
Reports, Committee ... 436
Report of the Delegates to the American Medical Association, June 7-10, 1943 ... 354
Rocky Mountain Spotted Fever, Concerning ... 298
Resolutions ... 114, 153, 188, 234
Scientific Use of Physical Therapy, The—Mildred F. Heap, B.S., Vanderbilt University Hospital, Nashville ... 455
Senate Bill 1161 ... 266
"Social Security" — Present and Proposed, The A, B, C's of ... 457
Social Security, The Multiple Cost of—C. O. Pauley, President, Insurance Economics Society of America ... 382
Special Ovarian Tumors: With a Report of a Series of Cases—Carroll H. Long, M.C., M.S. (Surgery), Johnson City; Joseph Ziskind, M.D., Department of Pathology, Tulane University, New Orleans, Louisiana ... 5
Statement of the Attitude of the Council of the Medical and Chirurgical Faculty of Maryland on the Wagner-Murray-Dingell Social Security Plan (S. 1161 and H. R. 2861) ... 416
Standing Committees ... 45
88, 162, 203, 245, 288, 328, 372, 412, 452, 484
Sulfadiazine Controlled an Epidemic of Scarlet Fever, Find ... 453
Surgical Treatment of Peptic Ulcer—G. Turner Howard, Jr., M.D., Knoxville ... 310
Tennessee Doctors and the Military Service ... 26
66, 145, 180, 226, 272, 388, 428, 468
Text of the Opinion Affirming Guilt of Two Medical Societies—Decision Written by Justice Roberts ... 50
Treatment of Burns, Local—R. B. Chrisman, Jr., Lieutenant Colonel, Medical Corps, Chief Surgical Service, Station Hospital, Camp Forrest, Tennessee ... 413
Treatment of Burns by the Use of Triple Dyes —Charles C. Trabue, M.D., Nashville ... 13
Treatment, Certain Complications of—Albert Weinstein, M.D., F.A.C.P., Nashville ... 305
Treatment, and the Diagnosis, of Carcinoma of the Colon—Harwell Wilson, M.D., F.A.C.S., Memphis ... 47
Treatment of Carcinoma of the Lip with Special Reference to the Management of the Regional Nodes—Harwell Wilson, M.C., F.A.C.S., Memphis ... 140
Treatment, Surgical, of Peptic Ulcer—G. Turner Howard, Jr., M.D., Knoxville ... 310
Traumatic Pseudocyst of the Pancreas—Carrington Harrison, M.D., and Fred Cooper, M.D., Nashville ... 299
Wagner-Murray-Dingell Social Security Plan (S. 1161 and H. R. 2861), A Statement of the Attitude of the Council of the Medical and Chirurgical Faculty of Maryland on the 416
Wounds, Perforating, of the Abdomen—Elkin L. Rippy, M.D., Nashville ... 20
Woman's Auxiliary ... 119
Your Stake in Capitalism — Eric Johnston, President, Chamber of Commerce of the United States ... 254

AUTHORS

Barksdale, E. H., M.D., Nashville—"Hyperparathyroidism" ... 97
Bauer, W. W., M.D., Chicago, Illinois—"An Interpretation of Draft Rejection Figures" 61
Berliner, M. L., M.D., New York—"Epidemic Keratoconjunctivitis" ... 138
Branch, J. R. Bromwell, A.B., M.D., Instructor —"Program of Postgraduate Instruction in Surgical Diagnosis" ... 55
Buchanan, Robert N., Jr., M.D., Nashville—"Diets in Dermatological Conditions" ... 89
Buckman, Lewis T., M.D., President, the Medical Society of the State of Pennsylvania—"Not All Men Think Alike" ... 57
Chaney, William Calvert, M.D., M.S. in Medicine, F.A.C.P., Memphis—"Medical Practice in Wartime" ... 210
Chrisman, R. B., Jr., Lieutenant Colonel, Medical Corps, Chief Surgical Service, Station Hospital, Camp Forrest, Tennessee—"Local Treatment of Burns" ... 413
Cooper, Fred, M.D., Nashville—"Traumatic Pseudocyst of the Pancreas" ... 299
Davis, Murray B., M.D., Nashville—"Convulsions Under Ether Anesthesia" ... 373

Diehl, Harold S., M.D., Minneapolis, Minnesota — "The Procurement and Assignment Service for Physicians, Dentists, and Veterinarians—Responsibilities, Accomplishments, and Future Problems . . . 163
Disick, Major S., Medical Corps, Army of the United States, and Lieutenant Colonel M. Kasick, Medical Corps, Army of the United States — Meningococcemia with Bilateral Adrenal Hemorrhage (Waterhouse-Friderichsen Syndrome): Report of Two Cases 464
Hamilton, C. M., M.D., Nashville—"Diets in Dermatological Conditions" . . . 89
Harrison, Carrington, M.D., Nashville—"Description of an Industrial Medical Program in an Aircraft Factory" . . . 127
Harrison, Carrington, M.D., Nashville—"Traumatic Pseudocyst of the Pancreas" . . . 299
Heap, Mildred F., B.S., Vanderbilt University Hospital, Nashville—The Scientific Use of Physical Therapy . . . 455
Howard, G. Turner, Jr., M.D., Knoxville—"Surgical Treatment of Peptic Ulcer" . . . 310
Johnston, Eric, President, Chamber of Commerce of the United States—"Your Stake in Capitalism" . . . 254
Kasick, Lieutenant Colonel M., Medical Corps, Army of the United States, and Major S. Disick, Medical Corps, Army of the United States—Meningococcemia with Bilateral Adrenal Hemorrhage (Waterhouse-Friderichsen Syndrome): Report of Two Cases . . . 464
King, Howard, M.D., Nashville—"Diets in Dermatological Conditions" . . . 89
Lewis, Milton Smith, M.D., Nashville—"Management of Placenta Previa" . . . 258
Long, Carroll H., M.C., M.S. (Surgery) Johnson City—"Special Ovarian Tumors: With a Report of a Series of Cases" . . . 5
Pauley, C. O., President, Insurance Economics Society of America, "The Multiple Cost of Social Security" . . . 382
Pennington, Jefferson C., M.D., Nashville—"Prostatic Enlargement" . . . 1
Powell, Rexford M., M.D., University of Tennessee—"Medical Aspects of Chemical Warfare as Related to Civilian Defense" . . . 289
Regen, Eugene M., M.D., Nashville—"Hyperparathyroidism" . . . 97
Rippy, Elkin L., M.D., Nashville—"Perforating Wounds of the Abdomen" . . . 20
Roberts, Justice—"Text of the Opinion Affirming Guilt of Two Medical Societies" . . . 50
Sachs, Ernest, M.D., St. Louis, Missouri—"The Essential Qualifications of a Great Surgeon" . . . 173
Shofner, N. S., M.D., Nashville—"Hyperparathyroidism" . . . 97
Swain, Robert L., Editor, *Drug Topics*—"The Postwar Coresponsibility of the Health Professions" . . . 247
Trabue, Charles C., M.D., Nashville—"Treatment of Burns by the Use of Triple Dyes" . . . 13
Turner, Edward L., M.D., Nashville—"Diseases of the Mediterranean Basin" . . . 205
Turner, Edward L., M.D., Nashville—"Bacillary Dysentery: A Résumé of the Disease and Its Modern Treatment" . . . 424
Weinstein, Albert, M.D., F.A.C.P., Nashville—"Certain Complications of Treatment" . . . 305
Wilson, Harwell, M.D., F.A.C.S., Memphis—"The Diagnosis and Treatment of Carcinoma of the Colon" . . . 47
Wilson, Harwell, M.D., F.A.C.S., Memphis—"Treatment of Carcinoma of the Lip with Special Reference to the Management of the Regional Nodes" . . . 140
Wilson, Harwell, Major, Medical Corps, A. U. S.—"Acute Abdominal Symptoms Resulting from Black Widow Spider Bite" . . . 324
Wright, Burnett W., M.D., Nashville—"Cancer of the Prostate" . . . 223
Ziskind, Joseph, M.D., Department of Pathology, Tulane University, New Orleans, Louisiana—"Special Ovarian Tumors: With a Report of a Series of Cases" . . . 5

Make Your

Reservations Now

110th STATE MEETING

Noel Hotel

Nashville, April 11-12-13

41,A372

J.H.OLZER
BINDER
BOSTON, MASS.

